

# **DataStore<sup>®</sup>™**

# **Administrator Guide**

**Version 1.2**

**December 2001**



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2101 CityWest Blvd.  
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  - system hardware configuration
  - serial numbers
  - related software (database, application, and communication) including type, version, and service pack or PTF

- sequence of events leading to the problem
- commands and options that you used
- messages received (and the time and date that you received them)
  - product error messages
  - messages from the operating system, such as `file system full`
  - messages from related software

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## About This Book

This book contains detailed information about DataStore and the DataStore Console. This book is intended for system administrators.

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### **Note**

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This book assumes that you are familiar with your host operating system. You should know how to perform basic actions in a window environment, such as choosing menu commands and dragging and dropping icons.

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# How This Book Is Organized

This book is organized as follows. In addition, a glossary of terms and an index appear at the end of the book.

Chapter/Appendix	Description
Chapter 1 “Introducing DataStore”	Provides basic conceptual information on DataStore and its related components.
Chapter 2 “Using the DataStore Console”	Provides instructions for starting the DataStore Console, an overview of the DataStore Console interface, and information on using the DataStore Console to manage data aggregators and retrievers.
Chapter 3 “Configuring Filters”	Provides information on configuring data collection for event and parameter data.
Chapter 4 “Summarizing, Retrieving, and Retaining Data”	Provides information on summarizing data manually, scheduling data retrieval, and setting data retention properties in the data aggregator.
Chapter 5 “Organizing Collected Data”	Provides information on using, organizing, and identifying collected data.
Chapter 6 “Configuring DataStore Components”	Provides information using the DataStore KM through the PATROL Console to configure data aggregators and retrievers.
Chapter 7 “Advanced Data Retrieval Tools”	Provides information on using the advanced data collection tools, including manual collection and the open data retriever.
Chapter 8 “Maintaining the DataStore”	Provides information on using scripts provided by BMC Software, Inc. for backup and recovery, database verification, and Report Server synchronization with the DataStore (database).
Appendix A, “Predefined History Filters”	Lists the predefined history filters and history filter groups installed with DataStore and associates them with the appropriate Solution Report.

Chapter/Appendix	Description
Appendix B, "Time Zone Acronyms, Names, and GMT Offsets"	Lists time zone acronyms, names, and GMT offsets as used in the DataStore Console.
Appendix C, "Sample Retriever Log Files"	Provides detailed information about Log file settings and includes sample Log files.

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# Conventions

The following conventions are used in this book:

- This book includes special elements called *notes* and *warnings*:

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## Note

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Notes provide additional information about the current subject.

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## Warning

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Warnings alert you to situations that can cause problems, such as loss of data, if you do not follow instructions carefully.

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- In instructions, **boldface** type highlights information that you enter. File names, directories, and Web addresses also appear in boldface type.
- The symbol => connects items in a menu sequence. For example, **Actions => Create Test** instructs you to choose the Create Test command from the Actions menu.
- The symbol >> denotes one-step instructions.

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# Introducing DataStore

This chapter provides basic conceptual information on the DataStore and its related components.

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# DataStore Overview

The DataStore is the database used by Service Reporting to store parameter and event data collected from your PATROL environment. A combination of retrievers and data aggregators collect and forward selected event and parameter data to the DataStore. Service Reporting, or other data analysis and reporting software, can then access the parameter and event data in the DataStore.

The DataStore contains

- parameter data and event data
- configuration settings for retrievers and data aggregators
- settings for history and event filters for data collection
- association information assigned to parameter data
- label, unit, and description information added to parameter data

Version 1.2 of DataStore uses Oracle Enterprise Edition 8.1.7.2.0 for Solaris or Unix and version 8.1.7.2.4 for Windows NT or Windows 2000.

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## Warning

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BMC Software strongly recommends that you do not alter the structure of the DataStore in any way. Any alteration to the DataStore could affect the overall behavior of Service Reporting and will not be supported by BMC Software.

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## DataStore Console

The DataStore Console is the graphical user interface for the DataStore. You can use the DataStore Console to

- schedule the retrieval of parameter data
- create history filters that determine what parameter data to collect from PATROL Agents
- create an event filter that determines what event data to collect from PATROL Agents

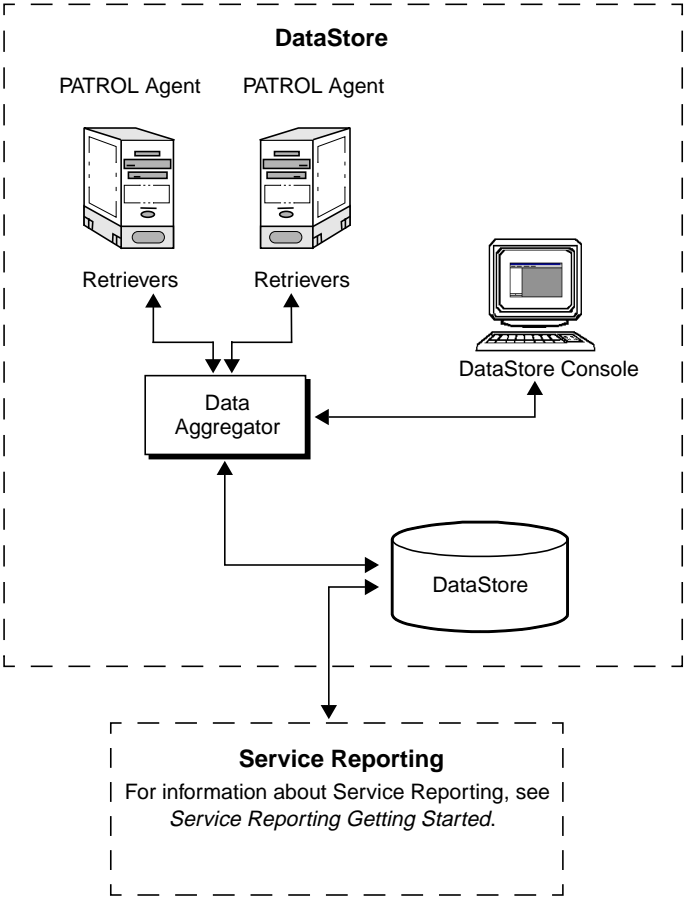


- view collected parameter and event data contained in the DataStore
- add labels, units, and descriptions that clarify data in reports
- assign associations to data so that reporting tools can use the associations to select data
- set data retention periods
- collect raw parameter data if it is needed by specialized reporting tools
- manually summarize raw data collected from an Open Data Retriever
- block namespaces from KMs not used in reports

# DataStore and Service Reporting

Figure 1-1 illustrates the flow of information from DataStore components to Service Reporting.

**Figure 1-1 DataStore and Service Reporting**



# Basic Concepts

This section reviews the basic concepts and terminology relating to the DataStore and the DataStore Console:

- Retrievers
- Data Aggregators
- Filters
- Associations
- Labels, Units, and Descriptions

## Retrievers

Retrievers compile and forward raw data from a PATROL Agent to a data aggregator. Retrievers run on computers where a PATROL Agent is installed. Retrievers selectively filter information according to settings received from the data aggregator. DataStore utilizes the following retrievers:

- history retrievers—collect parameter data from a PATROL Agent. The terms history data and parameter data are used interchangeably. You can have numerous history retrievers in your environment. History retrievers collect parameter data that matches the history filter settings. Each hour, history retrievers summarize and forward the collected parameter data to the data aggregator. The data aggregator periodically performs additional summarization and inserts the collected parameter data into the DataStore. For more information on using history filters in conjunction with history retrievers, see “Parameter Data Collection” on page 3-4.
- the event retriever—collects event data from a PATROL Agent. As events occur in PATROL, the event retriever collects event data that matches the event filter settings. As they are collected, events are forwarded to the data aggregator and automatically summarized. For more information on using the event filter and event retriever, see “Event Data Collection” on page 3-19.

- Open data retrievers allow you to load dump\_hist data from a comma separated file into the DataStore. For more information on using the open data retriever, see Chapter 7, “Advanced Data Retrieval Tools”.

## Data Aggregators

A data aggregator receives event and parameter data from the retrievers and then forwards that data to the DataStore. A data aggregator also

- initiates the process that converts summarized hourly data into daily, weekly, and monthly summarizations
- forwards history filter and event filter settings to appropriate retrievers for data collection
- synchronizes timestamps of the different data sources to the default time zone of GMT

In the simplest configuration, an environment can utilize one aggregator on a single machine. However, some environments may utilize multiple aggregators on separate machines.

## Filters

Filters specify the type of data that is collected within your environment. The following types of filters are used in DataStore:

- history filter—specifies what parameter data to collect
- event filter—specifies what event data to collect

Rather than specifying what data will not be collected, DataStore filters specify what data will be collected. Once a filter is created, the settings for the filter are sent to the appropriate retriever through the data aggregator. For more information on filters and data collection, see Chapter 3, “Configuring Filters”.

# Associations

Associations are assigned to data in the DataStore. The associations can then be used by Service Reporting or other data analysis and reporting tools to help select data for particular reports. The following association types are available:

- Category associations—for example, CPU usage and Storage space.
- Location associations—for example, Texas as a location and Houston as a sub-location, or California as a location and Los Angeles as a sub-location.
- Organization associations—for example, Human Resources and Information Services.

The DataStore does not contain any default associations. You must create specific categories, locations, and organizations according to the reporting needs of your environment.

You must also identify the data that will be associated with a category, location, or organization. As the identified data is collected, it will be recorded in the DataStore with its associated category, location, or organization. For more information on using associations in your environment, see “Labels, Units, and Descriptions Overview” on page 5-25.

## Labels, Units, and Descriptions

Labels, units, and descriptions are added to data in the DataStore. In Service Reporting, the labels, units, and descriptions can be displayed with the data. This makes the data easier to understand. In contrast to the way associations are used, labels, units, and descriptions are not used to help select data for reports.

Labels and descriptions can be added at the node, application class, application instance, or parameter level. Units can only be added at the parameter level.

Labels appear in reports to allow easy identification of the data. Units, such as GB, KB, or bytes-per-second, are intended to clarify the data in reports.

Descriptions do not appear in reports. Descriptions are available only in the DataStore Console and are used by the DataStore administrator to provide information the DataStore administrator finds helpful.

For more information on using labels, units, and descriptions in your environment, see “Labels, Units, and Descriptions Overview” on page 5-25.

# Using the DataStore Console

This chapter describes how to start the DataStore Console, how to manage retrievers and aggregators management, and how to use history and event charts.

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# DataStore Console Startup

The you connect the DataStore Console to one data aggregator at a time. After the DataStore Console and the data aggregator are connected, you can use the DataStore Console to perform the following actions:

- create history filters and history filter folders
- manage the event filter
- schedule data retrieval
- create and assign associations
- view parameter and event data
- add labels, units, and descriptions to data
- manually summarize data from the Open Data Retriever

## Starting the DataStore Console

---

**Summary:** This task describes how to start the DataStore Console from the Start button on the task bar or from a PATROL Console for Windows.

---

» Choose **Start => Programs => BMC PATROL => DataStore Console**

or

» In a PATROL Console, choose **Tools => Service Reporting => DataStore Administration**

The DataStore Console is displayed. For more information on the DataStore Console, see “Components of the User Interface” on page 2-6.

---

### Note

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Only the PATROL Console for Windows 3.4 or later has the menu command available for starting the DataStore Console.

---

## Connecting to a Data Aggregator

---

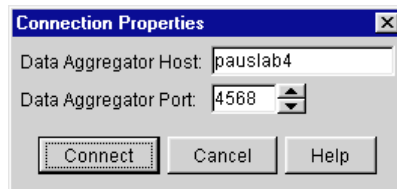
**Summary:** This task describes how to connect to a data aggregator from the DataStore Console.

---

**Step 1** From the File menu in the DataStore Console, click **Connection**.

The Connection Properties dialog box is displayed.

**Figure 2-1 Connection Properties Dialog Box**



**Step 2** In the Aggregator Host field, enter the name of the computer hosting the data aggregator.

**Step 3** In the Aggregator Port field, enter the port number for the data aggregator. The default port number is 4568.

**Step 4** Click **Connect**.

# Viewing Database Properties

**Summary:** This task describes how to open the Database Properties dialog box in order to view information about the DataStore.

**Step 1** In the DataStore Console, click the **Configuration** tab.

**Step 2** Right-click **Database**.

The Database Properties dialog box is displayed.

**Figure 2-2 Database Properties dialog box**

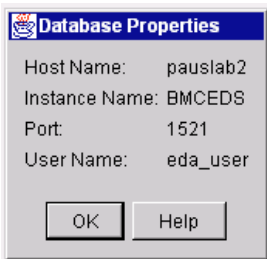


Table 2-1 describes the fields in the Database Properties dialog box.

**Table 2-1 Information in the Database Properties dialog box**

Field	Description
Host Name	Name of the server hosting the DataStore
Instance Name	Default name for the DataStore
Port	Number of the port used by the DataStore
User Name	Name of the administrator/user of the DataStore

**Note**

For information about editing the User Name field, see “Configuring a Local Data Aggregator” on page 6-4.

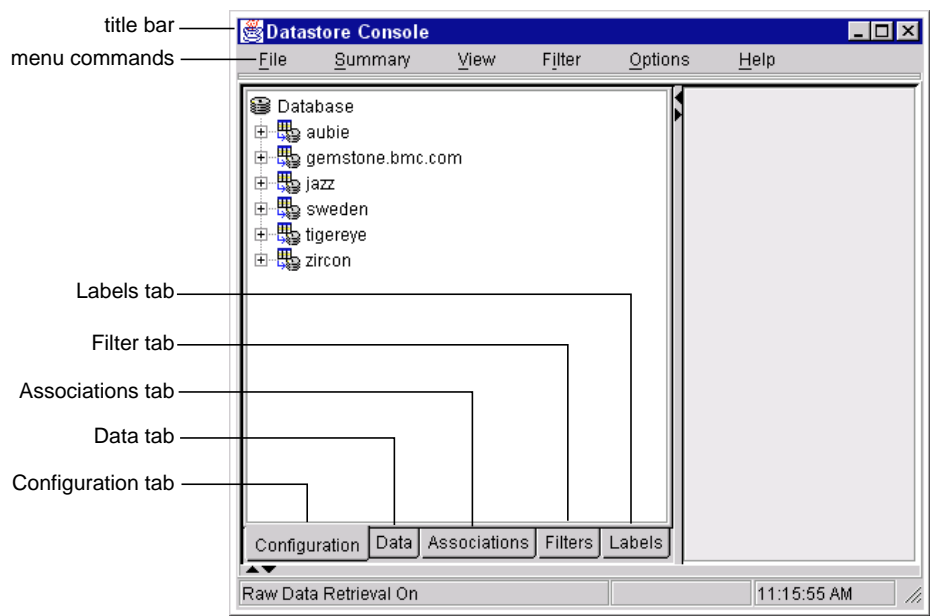
**Step 3** To close the Database Properties dialog box, click OK.

# Components of the User Interface

This section describes the tabs and the menu commands in the main window of the DataStore Console.

Figure 2-3 shows the graphical components that are visible in the main window of the DataStore Console.

**Figure 2-3    DataStore Console**

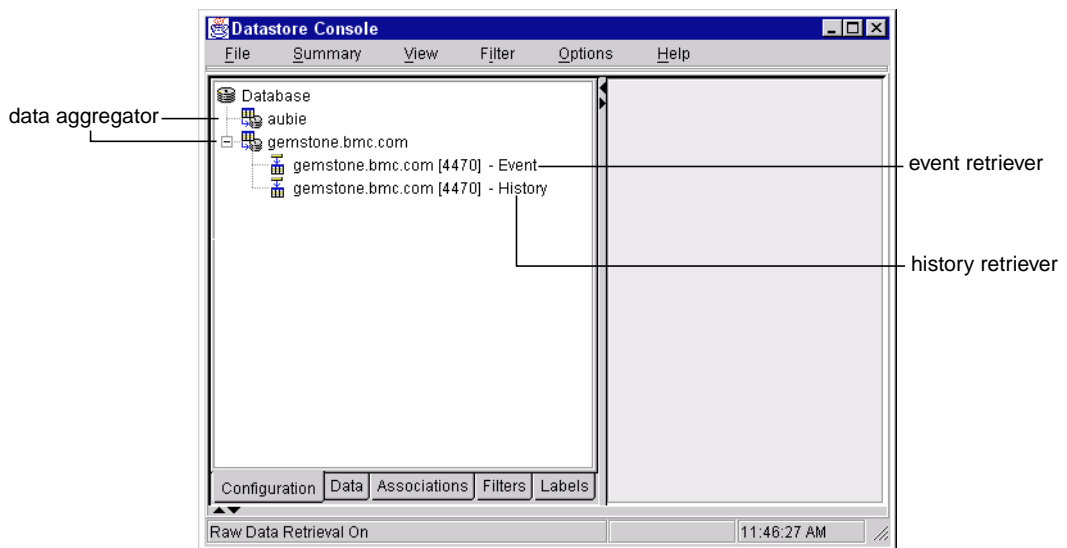


## Configuration Tab

The Configuration tab lists the data aggregators and retrievers contained in your environment. On the Configuration tab, you can

- view properties information about the database, aggregators, and retrievers (see “Data Aggregator Management” on page 2-21)
- schedule retrieval times for parameter data (see “Scheduling the Retrieval of History Data” on page 4-16)
- set the number of aggregator connections to the database

**Figure 2-4 Configuration Tab**

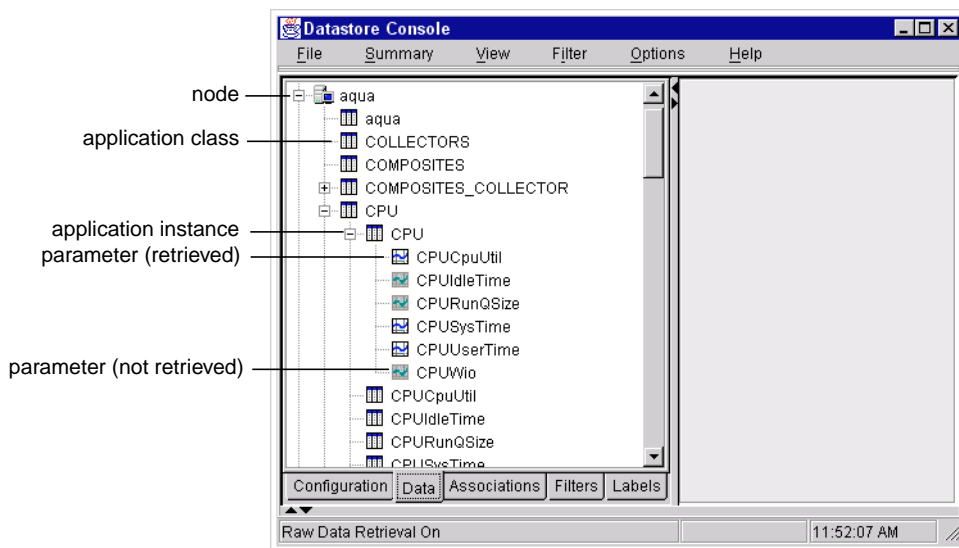


# Data Tab

On the Data tab, you can

- create filters
- create and view the labels, units, and descriptions within individual nodes or individual application instances.
- view the association, display, and retrieval information for data at any namespace level (see “Viewing Association, Display, and Retrieval Information” on page 5-32)
- control manual collection and manual summarization (see “Manual Retrieval Settings” on page 7-2 and “Manual Data Summarization” on page 4-7)
- create history charts and event charts (see “Creating a History Chart” and “Creating an Event Chart” on page 2-35)

**Figure 2-5 Data Tab**



The Data tab displays icons for nodes (computers), applications, and parameters from which you can collect data. Parameters that are not collected are displayed with a dimmed icon. A parameter will not be collected when

- the parameter is not identified by an enabled history filter (see “Creating a History Filter” on page 3-7).
- collection from the parameter has been manually stopped with a manual override (see “Manual Retrieval Settings” on page 7-2).

## Associations Tab

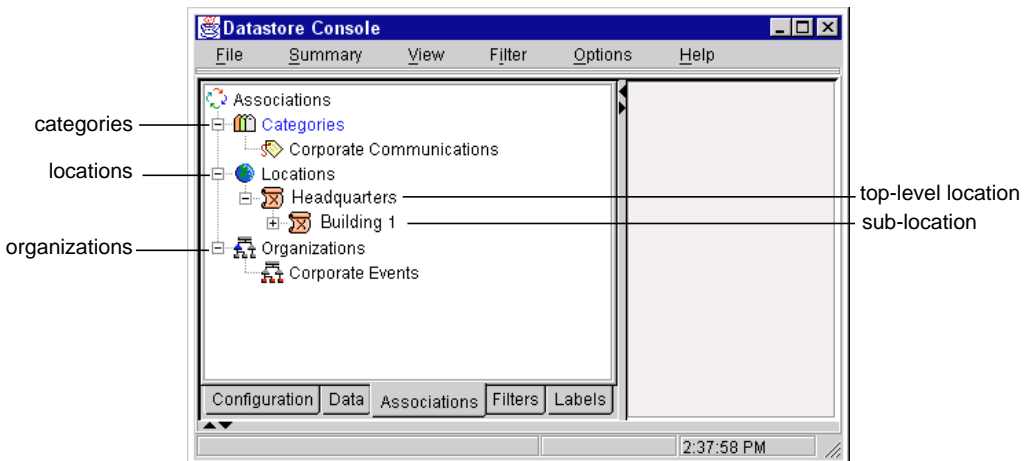
You can use the Associations tab to create the following association type:

- categories
- locations
- organizations

There are no default categories, locations, or organizations. You should create associations that match the reporting requirements of your environment. You can then assign those associations to data from a PATROL namespace. Each association can be attached to one or more nodes, application classes, application instances, or parameters. The associations you have created can then be used to select data for reports.

For more information on using the Associations tab, see “Organizing Collected Data” on page 5-1.

**Figure 2-6 Associations Tab**





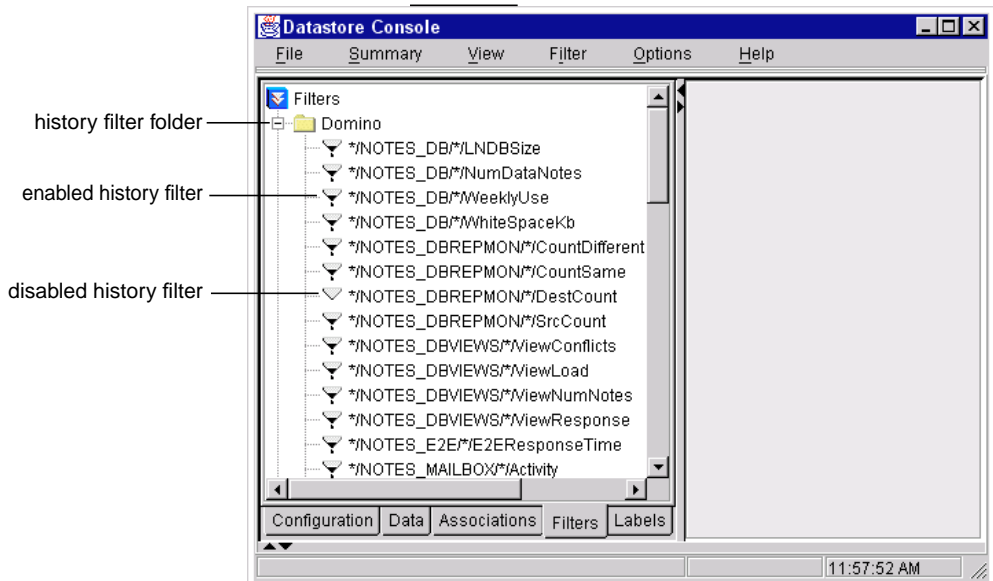
## Filters Tab

On the Filters tab, you can create, control, and organize history filters. Only data that is specified will be collected and stored in the DataStore. Data that is not specified by a history filter will not be collected from a PATROL Agent. History filters are used by history retrievers that run on a monitored node.

When initially installed, the DataStore includes predefined history filters that work with predefined reports in Service Reporting. To specify the additional collection of data, you must create additional history filters. As an option, you can create folders to help organize your history filters.

For more information on using the Filters tab for data collection, see “Configuring Filters” on page 3-1.

**Figure 2-7 Filters Tab**



## Labels Tab

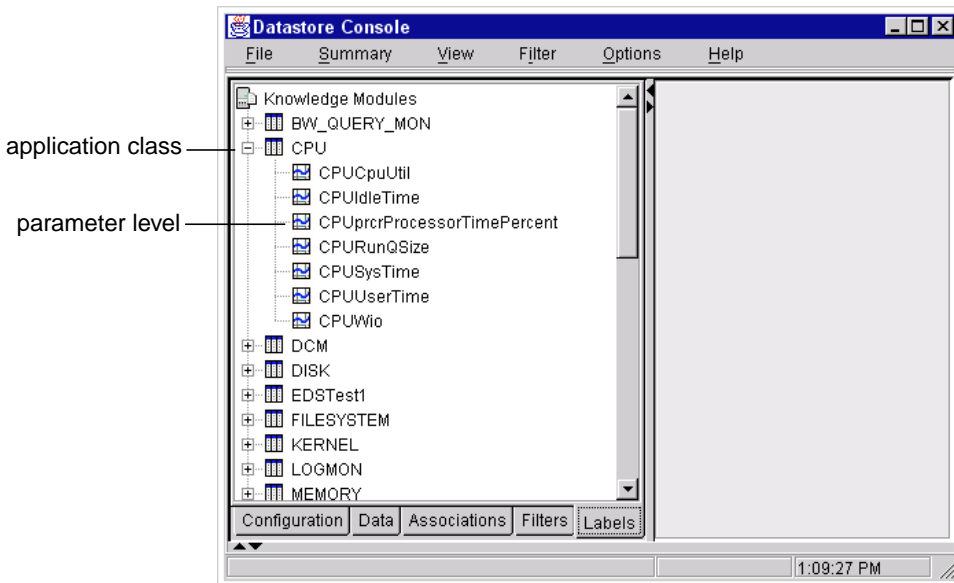
The Labels tab lists the Knowledge Modules in your environment. On the Labels tab, you can make changes to labels, units (of measure), and descriptions at the application class level and the parameter level of the PATROL namespace.

At the application class level, you can make universal changes to labels and descriptions. Those changes are automatically applied to data from all nodes on which the same KM is loaded.

At the parameter level, you can make universal changes to units as well as to labels and descriptions. Those changes are automatically applied to data from all instances of the parameter that are defined in the same KM.

For more information on using the Labels tab, see “Labels, Units, and Descriptions Overview” on page 5-25.

**Figure 2-8 Labels tab**



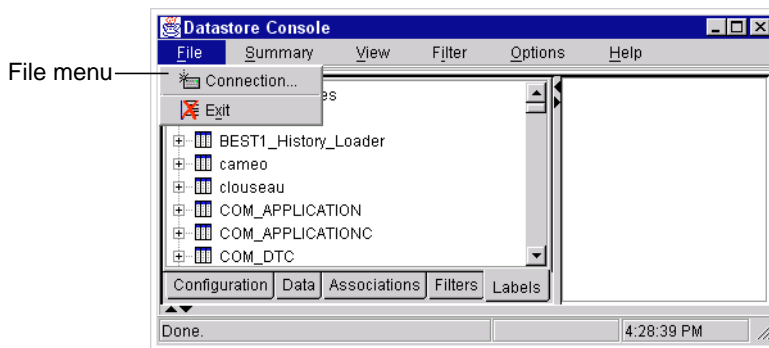
# File Menu

The File menu displays the following selections:

**Connection**—Clicking this selection displays the Connection Properties dialog box. For more information, see “Connecting to a Data Aggregator” on page 2-4.

**Exit**—Clicking this selection closes the Datastore Console and ends the connection to the Data Aggregator Host that is listed in the Connection Properties dialog box.

**Figure 2-9 File Menu**



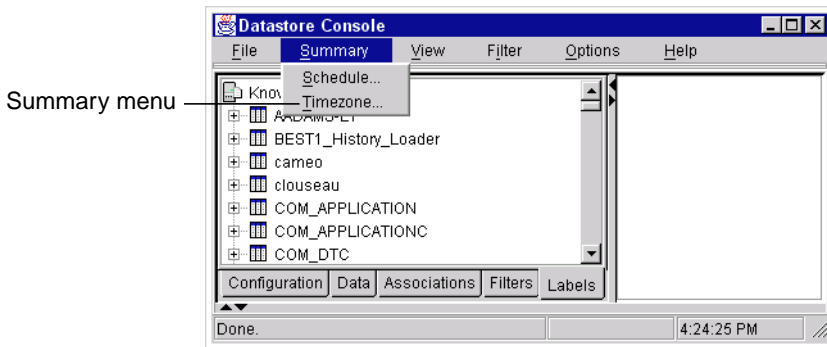
# Summary Menu

The Summary menu displays the following selections:

**Schedule**—Clicking this selection displays the Summary Schedule dialog box. For more information, see “Viewing Automatic Data Summarization Schedules” on page 4-6.

**Timezone**—Clicking this selection displays the Time Zones dialog box. For more information, see “Selecting a Time Zone” on page 4-19.

Figure 2-10 Summary Menu



## View Menu

The View menu displays the following options:

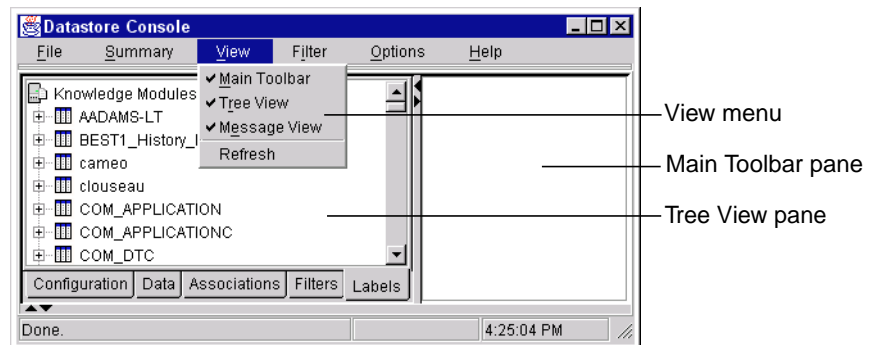
**Main Toolbar**—Clicking this selection display the Main Toolbar pane. Clearing this selection hides the Main Toolbar pane.

**Tree View**—Clicking this selection displays the Tree View pane. Clearing this selection hides the Tree View pane.

**Message View**—This selection is disabled in the DataStore Console.

**Refresh**—Clicking this selection causes the DataStore Console to perform an update of all displayable settings. At that time, displayable DataStore Console settings that have been edited but not yet saved will be lost.

**Figure 2-11 View Menu**



# Filter Menu

The Filter menu displays the following selections:

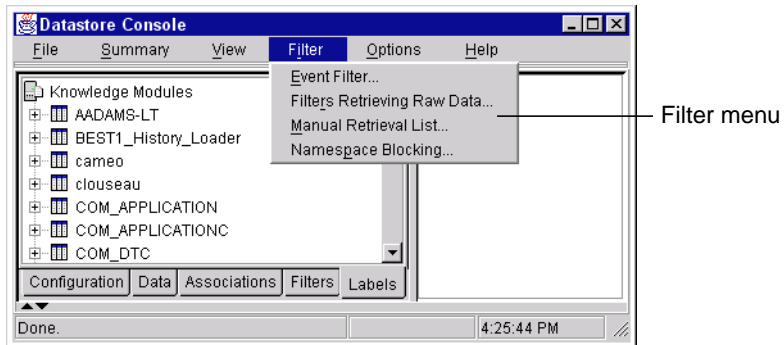
**Event Filter**—Clicking this selection displays the Event Filter Properties dialog box. For more information, see “Setting the Event Filter” on page 3-21.

**Filters Retrieving Raw Data**—Clicking this selection displays the Filters Retrieving Raw Data dialog box. For more information, see “Listing and Disabling Raw Data Retrieval” on page 3-18.

**Manual Retrieval List**—Clicking this selection displays the Manual Retrieval Properties dialog box. For more information, see “Listing and Clearing Manual Retrieval” on page 7-5.

**Namespace Blocking**—Clicking this selection displays the Namespace Blocking dialog box. For more information, see “Blocking Extraneous Parameters” on page 3-22.

**Figure 2-12 Filter Menu**



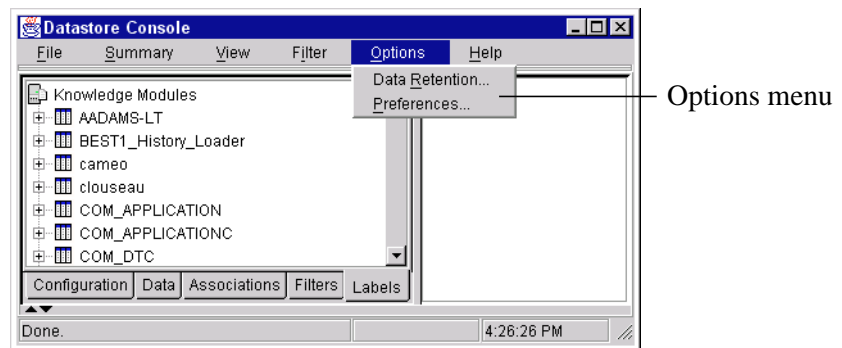
## Options Menu

The Options menu displays the following selections:

**Data Retention**—Clicking this selection displays the Retention Properties dialog box. For more information, see “Selecting Data Retention Periods” on page 4-20.

**Preferences**—Clicking this selection displays the Preferences dialog box. For more information, see “Setting a time frame for Event and History Charts” on page 2-33.

**Figure 2-13 Options Menu**



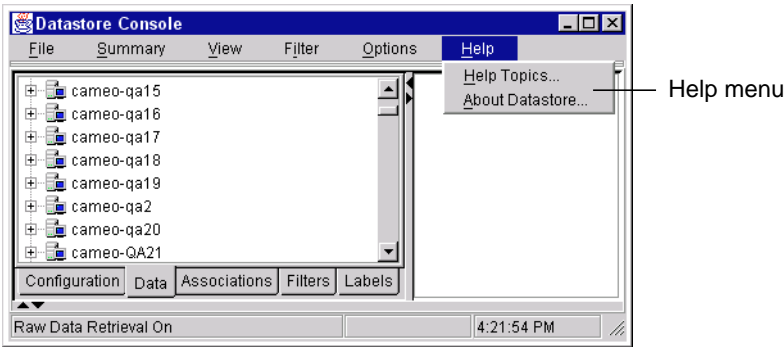
# Help Menu

The Help menu displays the following selections:

**Help Topics**—Clicking this selection displays the DataStore Console’s online Help system.

**About Datastore**—Clicking this selection displays the version number of the DataStore Console.

Figure 2-14 Help Menu





# Communication between a Retriever and Aggregator

All communication between a retriever and the aggregator is initiated by the retriever. A retriever downloads configuration settings from the aggregator. A retriever uploads collected data to the aggregator.

## Overview of Retriever-Aggregator Communication

**Ports**—Each time a retriever is started, it connects to the aggregator on the aggregator's listening port. The aggregator's default listening port is 4568.

**Configuration settings**—The retriever receives configuration settings, such as how often to retrieve data, from the aggregator. After configuration settings are received, the retriever disconnects from the aggregator.

**Connection cycles**—Thereafter, the retriever periodically connects to the aggregator in order to send the data it has collected since it last uploaded data to the aggregator. By default, the retriever uploads data to the aggregator every hour. In addition, the retriever connects to the aggregator every half hour to check for configuration changes that may have been entered by the DataStore Administrator.

**Reconnection**—If the retriever loses contact with the aggregator, it will continuously try to reconnect. For example, loss of contact can happen if the aggregator is shut down. As soon as the connection is re-established (as, for example, when the aggregator is restarted), the retriever will once again receive configuration settings from the aggregator as though the retriever has just been started. The retriever will then begin its regular cycle of connecting to the aggregator for the purpose of downloading configuration information and uploading retrieved data.

## Retriever-Aggregator Communication through a Firewall

Packets uploaded from the retriever to the aggregator are sent to the aggregator's listening port. The aggregator always uses the same listening port; by default, that listening port is 4568.

Packets downloaded from the aggregator to the retriever are sent to the retriever's listening port. By default, the retriever "port walks"; that is, it selects a different port each time it connects to the aggregator.

---

### Note

---

Each time a retriever completes a communication cycle with the aggregator, the retriever closes the connection and invalidates the port it was using as the retriever listening port. Because that port has been invalidated, it cannot be reused the next time the retriever communicates with the aggregator. Therefore, each time the retriever initiates communication with the aggregator, the retriever must use a different listening port. This is what is meant when it is said that a retriever "port walks."

---

If a firewall separates a retriever from the aggregator, the aggregator's listening port must be opened in the firewall. In addition, because retrievers port walk, the firewall must be configured to hold the state (IP address and port number) of packets being uploaded from the retriever into the aggregator's listening port. This configuration provides a limited time-to-live (TTL) hole in the firewall. The aggregator will download packets to the retriever through the limited TTL hole. When the TTL expires, the firewall will time out the outbound port and close the limited TTL hole.

# Data Aggregator Management

On the Configuration tab of the DataStore Console, you can perform the following functions that pertain to the data aggregators in your environment:

- view data aggregator information and settings
- set the number of connections to the DataStore

For more information about configuring an aggregator, see Chapter 6, “Configuring DataStore Components”.

## Viewing Data Aggregator Properties

---

**Summary:** This task describes how to open the Data Aggregator Properties dialog box in order to view information about a selected data aggregator.

---

**Step 1** In the DataStore Console, click the Configuration tab.

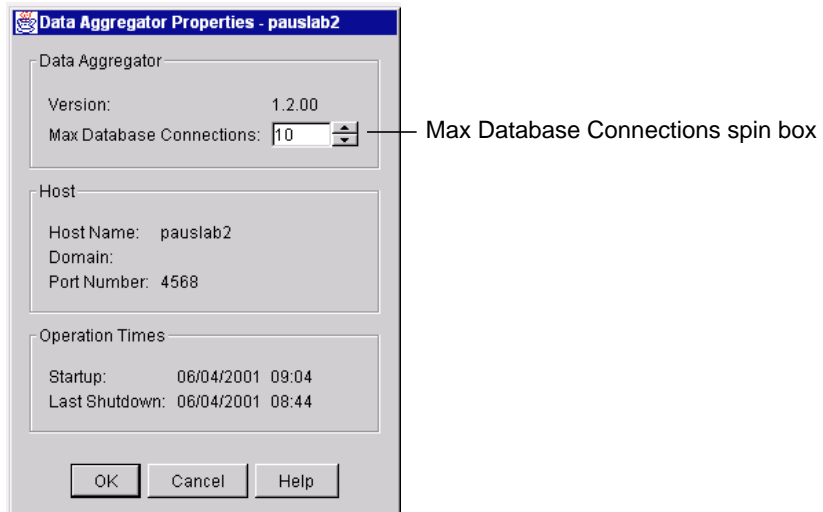
**Step 2** Right-click on a data aggregator.

A pop-up menu is displayed.

**Step 3** From the pop-up menu, choose **Properties**.

The Data Aggregator Properties dialog box is displayed.

**Figure 2-15 Data Aggregator Properties dialog box**



The Data Aggregator Properties dialog box displays information about the host, operating times, connections, and version for the data aggregator. Table 2-2 provides a description of the information displayed in the Data Aggregator Properties dialog box.

**Table 2-2 Data Aggregator Properties (Part 1 of 2)**

Field	Description
Version	The version number of the data aggregator.
Max Database Connections	The selection that establishes the maximum number of database connections available between the data aggregator and the database. For more information about this task, see "Setting the Maximum Database Connection Limit" on page 2-24.
Host Name	The name of the computer hosting the data aggregator.
Domain	The domain that the host computer is running in.
Port Number	The port number used to connect to the data aggregator.

**Table 2-2 Data Aggregator Properties (Part 2 of 2)**

Field	Description
Startup	Timestamp of the last time the data aggregator was started.
Last Shutdown	Timestamp of the last time the data aggregator was shut down. If the data aggregator must be terminated because the stop procedure was not successfully completed, this timestamp will not be updated. For more information, see "Stopping a Data Aggregator" on page 6-8.

**Step 4** To close the Data Aggregator Properties dialog box, click **OK**.

## Setting the Maximum Database Connection Limit

---

**Summary:** This task describes how to establish the maximum number of available connections between a data aggregator and the database.

---

**Step 1** In the DataStore Console, click the **Configuration** tab.

**Step 2** Right-click a data aggregator.

A pop-up menu is displayed.

**Step 3** From the pop-up menu, choose **Properties**.

An image of the Data Aggregator Properties dialog box is displayed in Figure 2-15 on page 2-22.

**Step 4** In the Max Database Connections spin box, enter the maximum number of database connections.

**Step 5** Click **OK**.

## Refreshing a Data Aggregator

---

**Summary:** This task describes how to refresh the settings for a data aggregator. Refreshing a data aggregator updates its settings from the DataStore. As you make changes, you should periodically update the data aggregator to ensure that you are working with the latest settings.

---

- Step 1** (Optional) To identify your current data aggregator connection, choose **File => Connection** from the menu. Your current data aggregator connection will be displayed in the Connection Properties dialog box.
- Step 2** In the DataStore Console, click the **Configuration** tab.
- Step 3** Right-click the data aggregator to which you are connected.
- A pop-up menu is displayed.
- Step 4** From the pop-up menu, choose **Refresh**.

# Data Retriever Management

In the DataStore Console, you can view and control individual retrievers on the Configuration tab. In the Retriever Properties dialog box, you can

- view the properties of a data retriever (for more information, see “Viewing Database Properties” on page 2-5)
- set a schedule for data retrieval (for more information, see “Scheduling the Retrieval of History Data” on page 4-16)



## Viewing Retriever Properties

---

**Summary:** This task describes how to open the Retriever Properties dialog box to view the properties of a selected retriever. For information about using the the Retriever Properties dialog box to schedule the retrieval of history data, see “Scheduling the Retrieval of History Data” on page 4-16.

---

**Step 1** In the DataStore Console, click the **Configuration** tab.

**Step 2** Click a data aggregator to expand it.

The list of retrievers is displayed.

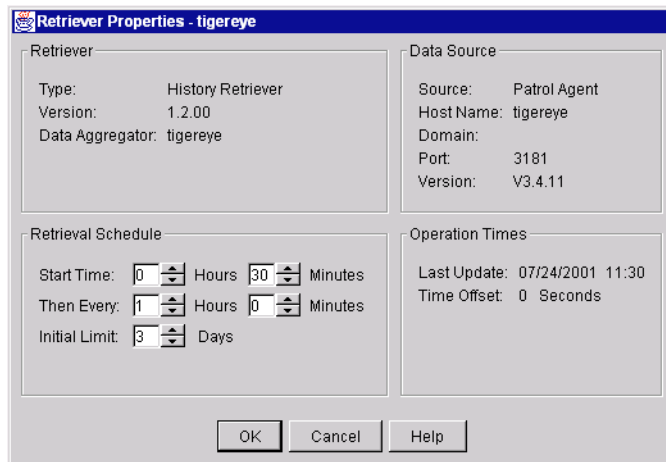
**Step 3** From the list of retrievers, right-click a retriever.

A pop-up menu is displayed.

**Step 4** From the pop-up menu, choose **Properties**.

The Retriever Properties dialog box is displayed.

**Figure 2-16 Retriever Properties Dialog Box for a History Retriever**



The Retriever Properties dialog box for a *history* retriever includes the Retrieval Schedule pane and the Time Offset field. The Retriever Properties dialog box for an *event* retriever does not include the Retrieval Schedule pane or the Time Offset field.

**Figure 2-17 Retriever Properties Dialog Box for an Event Retriever**



Table 2-3 provides a description of the information displayed in the Retriever Properties dialog box.

**Table 2-3 Retriever Properties (Part 1 of 2)**

Field	Description
Type	<p>The type of retriever These include:</p> <ul style="list-style-type: none"> <li>• event retrievers</li> <li>• history retrievers</li> <li>• Open Data Retrievers</li> </ul>
Version	<p>Version release number. In the Retriever Properties dialog box, there are two Version fields, as follows:</p> <ul style="list-style-type: none"> <li>• In the Retriever pane, this is the version number of the selected retriever.</li> <li>• In the Data Source pane, this is the version number of the listed data source.</li> </ul>

**Table 2-3 Retriever Properties (Part 2 of 2)**

Field	Description
Data Aggregator	The data aggregator to which the retriever is connected
Source	The source from which the retriever is obtaining its data; for example, a PATROL Agent
Host Name	The name of the computer hosting the retriever
Domain	The domain of the computer hosting the retriever
Port	The port number used by the PATROL Agent
Retrieval Schedule	<p>These selectable fields allow you to limit a history retriever's initial collection of data and to set a schedule for the regular retrieval of history data.</p> <p>For more information on setting the daily retrieval times, see “The Retrieval Schedule Pane” on page 4-12 and “Scheduling the Retrieval of History Data” on page 4-16.</p> <p><b>Note:</b> The Retrieval Schedule pane is displayed only if you have selected a history retriever. If you have selected an event retriever, the Retrieval Schedule pane is not displayed.</p>
Last Update	The timestamp displaying when data was last sent to the data aggregator from the retriever
Time Offset	<p>The difference between the clocks on the retriever and the data aggregator</p> <p><b>Note:</b> The Time Offset field is displayed only if you have selected a history retriever. If you have selected an event retriever, the Time Offset field is not displayed.</p>

## Refreshing a Retriever

---

**Summary:** This task describes how to refresh the displayed status and settings for a retriever. As you make changes, you should periodically update the retriever to ensure that you are working with the latest settings.

---

**Step 1** In the DataStore Console, click the **Configuration** tab.

**Step 2** Right-click a retriever.

A pop-up menu is displayed.

**Step 3** From the pop-up menu, choose **Refresh**.

# History Charts and Event Charts

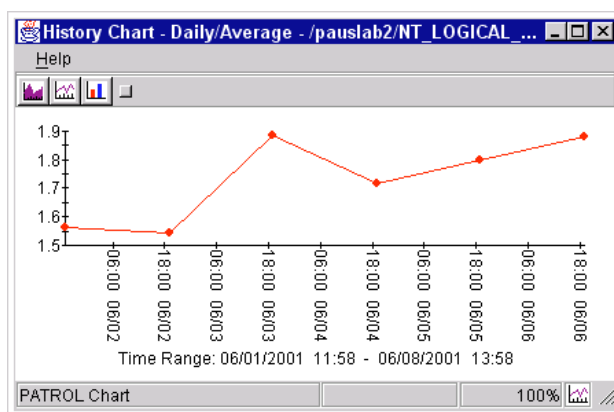
History charts and event charts allow you to view event and parameter data that has been stored in the DataStore. The DataStore Administrator can use these charts as a simple tool to verify that the desired data collection is occurring. These charts are not intended to be used for data analysis.

The time span of data shown in a history chart or event chart is determined by the time and date periods entered in the Preferences dialog box. The start time and date determine the beginning of the time span that is represented by the displayed data. The end time and date determine the end of the time span that is represented by the displayed data. For more information, see “Setting a time frame for Event and History Charts” on page 2-33.

## History Charts

For history charts, you can select the time period and summary value of the information that is displayed in the History Chart. In Figure 2-18, the history chart displays the daily average for a parameter.

**Figure 2-18 History Chart**

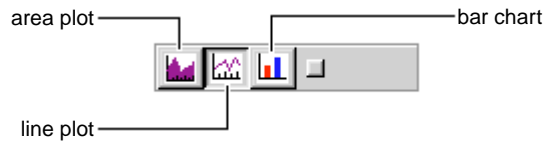


Buttons on the toolbar allow you to display different type of graphs in the history chart. These include:

- area plot
- line plot
- bar chart

Figure 2-19 shows the toolbar buttons.

**Figure 2-19 History Chart Toolbar Buttons**



## Event Charts

In event charts, event data is listed in columns that display event id, type, date/time, host, origin, and description information.

Figure 2-20 shows an Event Chart.

**Figure 2-20 Event Chart**

Event Chart - ELMWarning

...	ID	Type	Date/Time	Host	Origin	Description
	38,952	WARNING	06/08/01, 08:46:06	NT_EVINSTS...	NT_EVINSTS...	Alarm #1 of glo...
	38,758	WARNING	06/08/01, 08:16:03	NT_EVINSTS...	NT_EVINSTS...	Alarm #1 of glo...
	38,578	WARNING	06/08/01, 07:46:00	NT_EVINSTS...	NT_EVINSTS...	Alarm #1 of glo...
	38,394	WARNING	06/08/01, 07:15:54	NT_EVINSTS...	NT_EVINSTS...	Alarm #1 of glo...
	38,229	WARNING	06/08/01, 06:45:49	NT_EVINSTS...	NT_EVINSTS...	Alarm #1 of glo...
	38,043	WARNING	06/08/01, 06:15:44	NT_EVINSTS...	NT_EVINSTS...	Alarm #1 of glo...
	37,864	WARNING	06/08/01, 05:45:41	NT_EVINSTS...	NT_EVINSTS...	Alarm #1 of glo...
	37,661	WARNING	06/08/01, 05:15:38	NT_EVINSTS...	NT_EVINSTS...	Alarm #1 of glo...
	37,472	WARNING	06/08/01, 04:45:34	NT_EVINSTS...	NT_EVINSTS...	Alarm #1 of glo...
	37,256	WARNING	06/08/01, 04:15:31	NT_EVINSTS...	NT_EVINSTS...	Alarm #1 of glo...

Time Range: 06/01/2001 11:58 - 06/08/2001 13:58

OK Help

## Setting a time frame for Event and History Charts

---

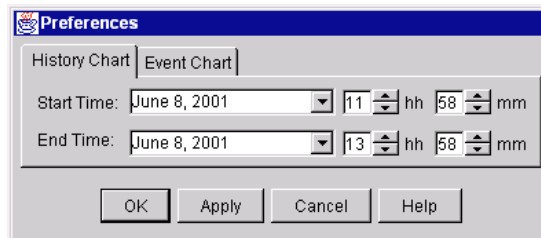
**Summary:** This task describes how to define a time frame for the data that is displayed in event and history charts. Use the charts produced from these settings to verify the collection of data during a specific period.

---

**Step 1** In the DataStore Console, choose **Options => Preferences**.

The Preferences dialog box is displayed.

**Figure 2-21 Preferences Dialog Box**



**Step 2** Select either the History Chart tab or the Event Chart tab. This selection determines which type of chart will be modified.

**Step 3** In the Start Time field, enter the date and time that will begin the time span represented by the data.

**Step 4** In the End Time field, enter the date and time that will end the time span represented by the data.

**Step 5** Click **Apply**.

**Step 6** Click **OK**.

## Creating a History Chart

---

**Summary:** This task describes how to create a history chart. Use a history chart to verify the collection of data from a selected parameter. For more information about History Charts, see “History Charts and Event Charts” on page 2-31.

---

### Before You Begin

Before performing this task, complete the steps in “Setting a time frame for Event and History Charts” on page 2-33.

### Steps to Create a History Chart

- Step 1** In the DataStore Console, click the **Data** tab.
- Step 2** To expand the display down to the parameter level, select a computer name, application class, and application instance.
- Step 3** Right-click a parameter.
- A pop-up menu is displayed.
- Step 4** From the pop-up menu, choose **History Chart** => *<time period>* => *<summary value>*. For example, to display the hourly average for a parameter, choose **History Chart** => **Hourly** => **Average**.
- The History Chart is displayed. In the History Chart, the display of Parameter data is limited to the time and date periods specified in the Preferences dialog box.
- An example of a History Chart is displayed in Figure 2-18 on page 2-31.
- Step 5** From the History Chart toolbar, set the type of display by selecting the area plot button, the line plot button, or the bar chart button.



## Creating an Event Chart

---

**Summary:** This task describes how to create an event chart. Use an event chart to verify the collection of desired event data. For more information about History Charts, see “History Charts and Event Charts” on page 2-31.

---

### Before You Begin

Before performing this task, complete the steps in “Setting a time frame for Event and History Charts” on page 2-33.

### Steps to Create an Event Chart

**Step 1** In the DataStore Console, click the **Data** tab.

**Step 2** Right-click a computer name, application class, application instance, or parameter.

A pop-up menu is displayed.

**Step 3** From the pop-up menu, choose **Event Chart**.

The Event Chart dialog box is displayed. It lists all events for the time and date period specified in the Preferences dialog box. If no event data is available, a warning message is displayed.

An example of an Event Chart is displayed in Figure 2-20 on page 2-32.



# Configuring Filters

This chapter provides information about the collection of parameter and event data through the interaction of history filters, event filters, and retrievers. It also provides information about blocking extraneous parameters.

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# DataStore Data Collection

With the DataStore, you can collect

- parameter data—knowledge module parameter information collected from the PATROL Agent
- event data—event information for an agent collected from the PATROL Event Manager

Parameter data is collected by a history retriever that is running on an agent computer. Using the history filter settings in the DataStore Console, the history retriever gathers the parameter data from the agent. For more information on collecting parameter data, see “Parameter Data Collection” on page 3-4.

Event data is collected by an event retriever that is running on an agent computer. Using the event filter settings in the DataStore Console, the event retriever gathers event information from the PATROL Event Manager. For more information on collecting event data, see “Event Data Collection” on page 3-19.

---

## Note

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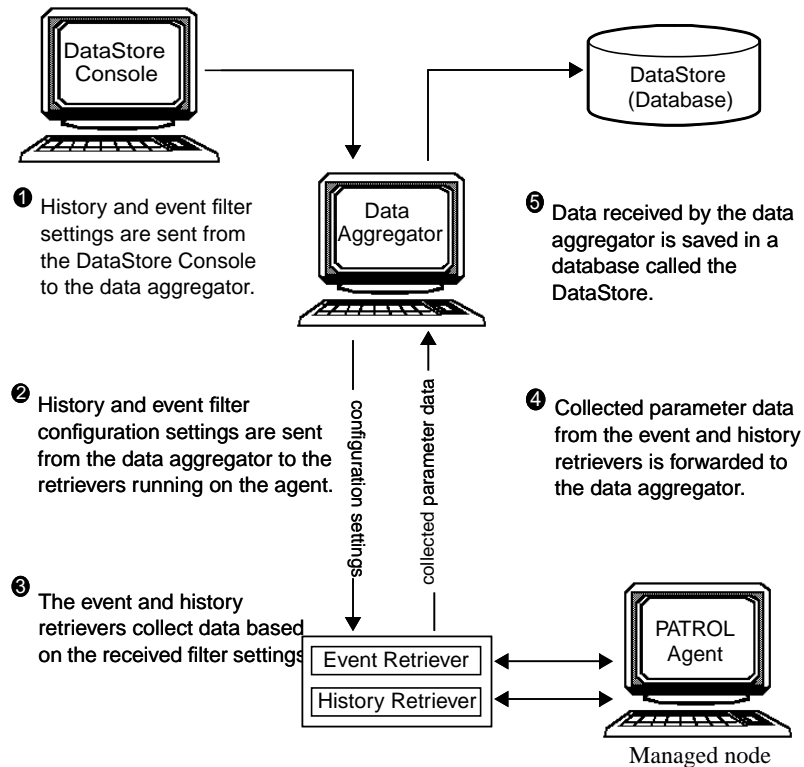
Alternative collection methods of data collection, such as manual collection and the Open Data Retriever, are discussed in “Advanced Data Retrieval Tools” on page 7-1.

---

# The Data Collection Process

Data is collected with a combination of filters and retrievers. Figure 3-1 illustrates how the data collection components work together to collect data and forward it to the DataStore.

**Figure 3-1 Overview of the Data Collection Process**

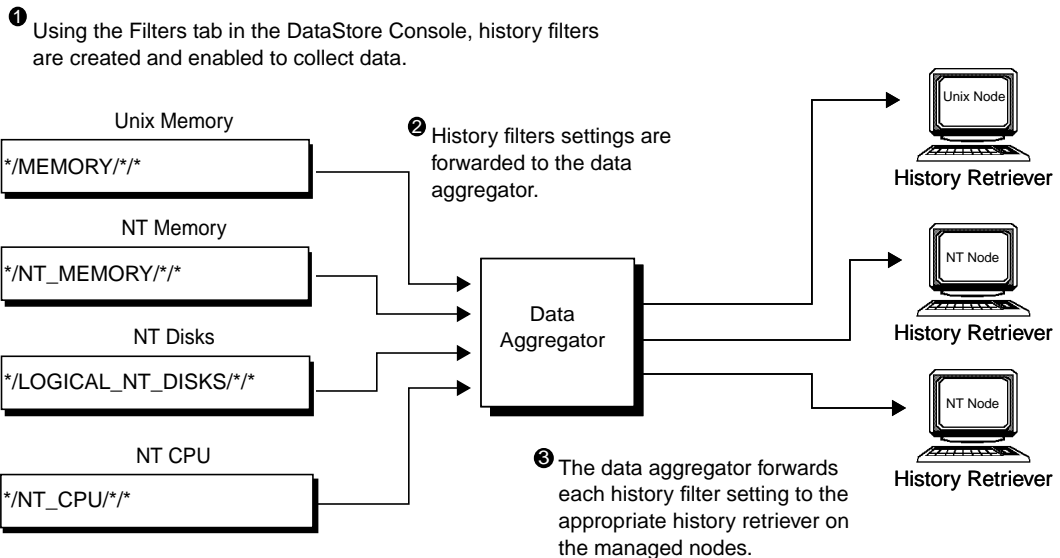


# Parameter Data Collection

The collection of parameter data by history retrievers is controlled by history filters. History filters specify the type of parameter data to collect from an agent. When the history filter is enabled, it is sent to the appropriate history retrievers.

Figure 3-2 illustrates the steps in which history filter settings are sent to history retrievers on managed nodes. For additional information about history filters, see “Creation and Management of History Filters” on page 3-5.

**Figure 3-2 Sending History Filter Settings to Managed Nodes**



---

## Note

During installation, default history filters are automatically installed along with the DataStore Console. These gather data for specific Solution Reports in Service Reporting. For more information on the default history filters, see “Predefined History Filters” on page A-1.

---

# Creation and Management of History Filters

History filters tell a history retriever which parameter data to collect from a PATROL Agent. The specified data is identified by the PATROL namespace given to the history filter. The parameter data that you can collect is dependent on the PATROL Knowledge Modules currently installed on an agent.

The format of a history filter is:

node/application class/application instance/parameter

For example, if you want to collect data for the parameter CACcachCopyReadsPerSec for the agent plab4 you would enter:

**plab4.bmc.com/NT\_CACHE/NT\_CACHE/CACcachCopyReadsPerSec**

You can use an asterisk (\*) wildcard in a history filter to designate that all parameters in an application class or application instance be collected. For example, if you enter dhors.bmc.com/NT\_CPU/\*/\*, all parameters contained in the application class NT\_CPU are collected from the agent on the dhors node.

---

## Note

The DataStore Console will not allow you to create a history filter containing all asterisks (\*/\*/\*/\*).

---

## History Filter Management

At any time, a history filter can be created, altered, deleted, enabled, or disabled. You can also choose to create history filter folders. You may find it convenient to group some or all of your history filters in various folders. However, it is not necessary to create or use history filter folders.

A history filter performs the same whether or not it is in a history filter folder. No matter what mix of history filters and history filter folders you create, the collection and storage of data will be unaffected:

- There will be no change in the way data is collected by the history retrievers.
- There will be no change in the way data is recorded in the DataStore.

### **Advantages of History Filter Folders**

You may have a large number of history filters listed in the DataStore Console. In this case, it may be easier to identify, locate, and manage individual history filters if they are arranged within various folders. Another advantage is that a single setting can be used so that all of the history filters within a history filter folder

- Retrieve no data
- Retrieve summarized data only
- Retrieve summarized and raw data

History filter folders can be created, deleted, or renamed at any time. Whenever you choose, you can also move history filters from one history filter folder to another or from a history filter folder to the top level of the history filter list.



## Creating a History Filter

---

**Summary:** This task describes how to create a history filter to define data collected by the history retriever.

---

**Step 1** In the DataStore, click the **Filters** tab.

**Step 2** In the filter list, you have three options.

- Right-click **Filters** to create a filter that is not in a folder.
- Right-click a folder to create a filter in the selected folder.
- Right-click any filter to create a filter parallel to the selected filter, whether or not the selected filter is in a folder.

A pop-up menu is displayed.

---

### Note

---

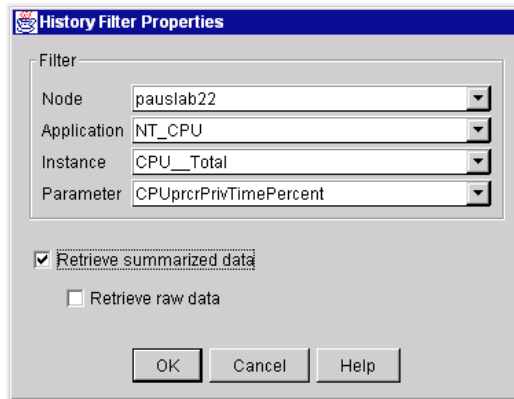
Whether you use a folder is strictly a matter of convenience. Your selection can be changed at any time. A history filter's performance and properties are not affected in any way by a folder. If you need to create a folder, see "Creating a History Filter Folder" on page 3-13.

---

**Step 3** From the pop-up menu, click **Add** or **Add Filter**.

The History Filter Properties dialog box is displayed. None of the fields in the dialog box are preselected.

**Figure 3-3 History Filter Properties Dialog Box**



**Step 4** In the Filter pane, use the drop down menus to select the node, application class, application instance, and parameter that provide the characteristics and name of this filter. For more information, see “Creation and Management of History Filters” on page 3-5.

**Step 5** To allow a history retriever to use this filter, select **Retrieve Summarized Data**.

---

**Note**

If **Retrieve Summarized Data** is not selected, the history retriever will not use this filter to retrieve data. The filter will continue to exist, but it will not be used.

---

**Step 6** (Optional) To use this filter to collect raw data, first select **Retrieve Summarized Data**, then select **Retrieve Raw Data**.

---

**Note**

---

A history filter cannot be used to retrieve raw data unless it is also being used to retrieve hourly summarized data.

---

---

**Warning**

---

Do not retrieve raw parameter data unless you have a specific reporting tool that requires raw data. Service Reporting does not use raw parameter data. Forwarding significant amounts of raw data to the data aggregator can seriously impact the performance of the DataStore. The retrieval of raw history data can also affect the summarization of data from an Open Data Retriever. Before you select to retrieve raw data, you should be thoroughly familiar with the information in “Data Summarization Overview” on page 4-2.

---

**Step 7** Click **OK**.

## Modifying an Existing History Filter

---

**Summary:** This task describes how to modify the namespace properties of an existing history filter so that different parameter data will be selected by the history retriever. Modifying an existing history filter that is no longer needed may be easier than creating a new one.

---

**Step 1** In the DataStore Console, click the **Filters** tab.

**Step 2** Click **Filters** to expand the history filter list.

---

**Note**

---

If the filter is in a folder, you must also click on that folder to further expand the history filter list.

---

**Step 3** Right-click the history filter you want to modify.

A pop-up menu is displayed.

**Step 4** From the pop-up menu, click **Properties**.

The History Filter Properties dialog box is displayed. The fields in this dialog box are already populated with the properties of this history filter.

An image of the History Filter Properties dialog box is displayed in Figure 3-3 on page 3-8.

**Step 5** In the Filter pane, use the drop down menus to select a different node, application class, application instance, or parameter. For more information on the format used for a history filter, see “Creation and Management of History Filters” on page 3-5.

**Step 6** To allow a history retriever to use this filter, select **Retrieve Summarized Data**.

If **Retrieve Summarized Data** is not selected, the history retriever will not use this history filter to retrieve data. The filter will continue to exist, but it will not be used.

**Step 7** (Optional) To use this filter to collect raw data, first select **Retrieve Summarized Data**, then select **Retrieve Raw Data**.

---

**Note**

---

A history filter cannot be used to retrieve raw data unless it is also being used to collect hourly summarized data.

---

---

**Warning**

---

Do not retrieve raw parameter data unless you have a specific reporting tool that requires raw data. Service Reporting does not use raw parameter data. Forwarding significant amounts of raw data to the data aggregator can seriously impact the performance of the DataStore. The retrieval of raw history data can also affect the summarization of data from an Open Data Retriever. Before you select to retrieve raw data, you should be thoroughly familiar with the information in “Data Summarization Overview” on page 4-2.

---

**Step 8** Click **OK**.

## Deleting a History Filter

---

**Summary:** This task describes how to delete a history filter.

---

**Step 1** In the DataStore Console, click the **Filters** tab.

**Step 2** Click **Filters** to expand the history filter list.

---

**Note**

---

If the filter is in a folder, you must also click on that folder to further expand the history filter list.

---

**Step 3** Right-click the history filter you want to delete.

A pop-up menu is displayed.

**Step 4** From the pop-up menu, click **Delete**.

The history filter is deleted from the list of history filters.

## Creating a History Filter Folder

---

**Summary:** This task describes how to create a history filter folder. The creation and use of history filter folders is completely optional.

---

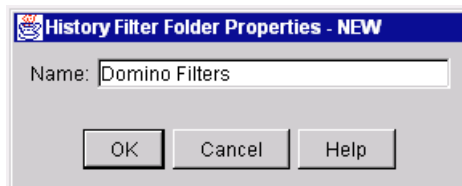
**Step 1** In the DataStore Console, click the **Filters** tab.

**Step 2** In the filters list, right-click **Filters**.

**Step 3** From the pop-up menu, click **Add Folder**.

The History Filter Folder Name dialog box is displayed.

**Figure 3-4 History Filter Folder Properties Dialog Box**



**Step 4** In the Name field, enter a name for the history filter folder.

**Step 5** Click **OK**.

The new history filter folder is created.

## Moving History Filters

---

**Summary:** This task describes how to move a history filter from the unorganized portion of the history filter list into an existing history filter folder. You can also use this task to move a history filter from one history filter folder into another. Whichever folder you choose for a filter, the properties and performance of the filter are not affected. If you need to create a folder, see “Creating a History Filter Folder” on page 3-13.

---

**Step 1** In the DataStore Console, click the **Filters** tab.

**Step 2** Click **Filters** to expand the history filter list.

---

**Note**

---

If the filter is in a folder, you must also click on that folder to further expand the history filter list.

---

**Step 3** Right-click the history filter you want to move.

A pop-up menu is displayed.

**Step 4** From the pop-up menu, click **Move**.

A pop-up menu is displayed. This pop-up menu lists the available history filter folders.

**Step 5** From the pop-up menu of available history filter folders, select a history filter folder.

The history filter is moved into the folder you select.

---

**Note**

---

To move a history filter from a folder to the top level of the history filter list where it will not be in a folder, select **No Folder**.

---



## Renaming a History Filter Folder

---

**Summary:** This task describes how to change the name of an existing history filter folder. The name given to a history filter folder is completely optional and is solely for the convenience of the user.

---

**Step 1** In the DataStore Console, click the **Filters** tab.

**Step 2** In the filters list, right-click **Filters**.

**Step 3** Click **Filters** to expand the history filter list.

**Step 4** Right-click the folder you want to rename.

A pop-up menu is displayed.

**Step 5** From the pop-up menu, click **Properties**.

The History Filter Folder Properties dialog box is displayed.

An image of the History Filter Folder Properties dialog box is displayed in Figure 3-4 on page 3-13.

**Step 6** In the Name field of the History Filter Folder Properties dialog box, enter a new name for the history filter folder.

**Step 7** Click **OK**.

## Setting Data Retrieval for All Filters in a History Filter Folder

---

**Summary:** This task describes how to uniformly set data retrieval for all of the history filters that are in a history filter folder. This action affects only those filters that are in a folder at the time you take this action. A filter added to the folder after this task is performed will not be affected.

---

**Step 1** In the DataStore Console click the **Filters** tab.

**Step 2** Double-click **Filters** to expand the history filter list.

**Step 3** Right-click a history filter folder.

A pop-up menu is displayed.

**Step 4** From the pop-up menu, select **All Filters**

A pop-up menu is displayed.

**Step 5** From the pop-up menu, select one of the following:

- **Retrieve No Data**
- **Retrieve Summarized Data Only**
- **Retrieve Summarized and Raw Data**

---

### Warning

---

Do not retrieve raw parameter data unless you have a specific reporting tool that requires raw data. Service Reporting does not use raw parameter data. Forwarding significant amounts of raw data to the data aggregator can seriously impact the performance of the DataStore. The retrieval of raw history data can also affect the summarization of data from an Open Data Retriever. Before you select to retrieve raw data, you should be thoroughly familiar with the information in “Data Summarization Overview” on page 4-2.

---

## Deleting a History Filter Folder

---

**Summary:** This task describes how to delete a history filter folder. Before a folder can be deleted, all history filters must be removed from the folder. To remove a history filter and place it in another folder, see “Moving History Filters” on page 3-14. To delete a history filter in order to remove it from the folder, see “Deleting a History Filter” on page 3-12.

---

- Step 1** In the DataStore Console, click the **Filters** tab.
- Step 2** Click **Filters** to expand the history filter list.
- Step 3** Right-click the history filter folder that you want to delete.
- A pop-up menu is displayed.
- Step 4** From the pop-up menu, click **Delete**.
- The history filter folder is deleted.

## Listing and Disabling Raw Data Retrieval

---

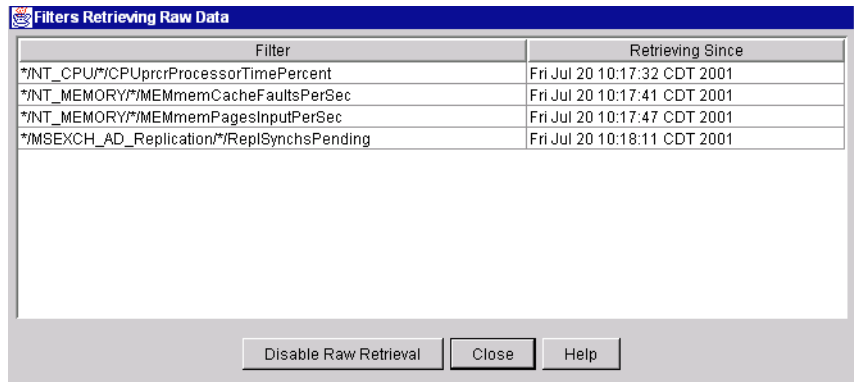
**Summary:** This task describes how to list all history filters in your environment that are forwarding raw data to the aggregator. This task also describes how to disable the collection of raw data from those filters. This task will not affect the collection and forwarding of summarized hourly data. If you use this task to disable the collection of raw data from a history filter, summarized hourly data will still be collected and forwarded from this history filter.

---

**Step 1** From the Filter menu in the DataStore Console, select **Filters Retrieving Raw Data**.

The Filters Retrieving Raw Data dialog box is displayed.

**Figure 3-5 Filters Retrieving Raw Data Dialog Box**



**Step 2** As desired, select the filter or filters from which you want to stop the retrieval of raw data.

**Step 3** Select **Disable Raw Retrieval**.

The filter will be removed from the list of filters displayed in this dialog box. Hourly summarized data from this filter will continue to be collected and forwarded to the aggregator.

Select **Close**.

# Event Data Collection

The collection of event data by event retrievers is determined by the settings in the event filter. There is only one event filter in a DataStore.

Unlike history retrievers, an event retriever does not run on a schedule. An event retriever runs whenever an event matches the criteria specified in the event filter. When such an event occurs, the event retriever immediately forwards the event data to the data aggregator.

## Event Filter Properties

Use the Event Filter Properties dialog box in the DataStore Console to manage the event filter. When setting event filter properties, you can use the following criteria to determine event collection:

- event type
- event status
- event severity

## Event Type

Table 3-1 lists and describes the different types of events that you can collect event data for.

**Table 3-1 Event Type Descriptions (Part 1 of 2)**

Event Type	Description
Information	An event that is logged for informational purposes only.
State Change	An event triggered by the state change of a monitored object.
Error	An event resulting from a failure or error.
Warning	An event triggered by an alert condition in a monitored object.

**Table 3-1 Event Type Descriptions (Part 2 of 2)**

Event Type	Description
Alarm	An event triggered by an alarm condition in a monitored object.
Response	An event used to synchronize PATROL Console response dialog processing. The PATROL Agent triggers a RESPONSE event at the request of the PATROL Console when a response dialog is displayed.

## Event Status

Table 3-2 lists and describes the status of events that you can collect event data for.

**Table 3-2 Event Status Descriptions**

Event Status	Description
Open	Indicates that the problem causing the event is still open and has not been taken care of.
Acknowledged	Indicates that someone has taken responsibility for resolving this event.
Closed	Indicates that the event has been examined and the problem causing the event has been dealt with.
Escalated	Indicates that the priority of the event has been escalated.
Deleted	Indicates that the event is no longer important enough to keep a record of it.

## Event Severity

The severity level for an event can range from 1 to 5. In this scale, the least severe events are level 1. The most severe events are level 5. To be collected, an event must be at or above the selected severity level. For example, if you set your severity level at 1, events at all five severity levels are collected. If you set your severity level at 3, only events having a severity level of 3, 4, or 5 are collected.

## Setting the Event Filter

---

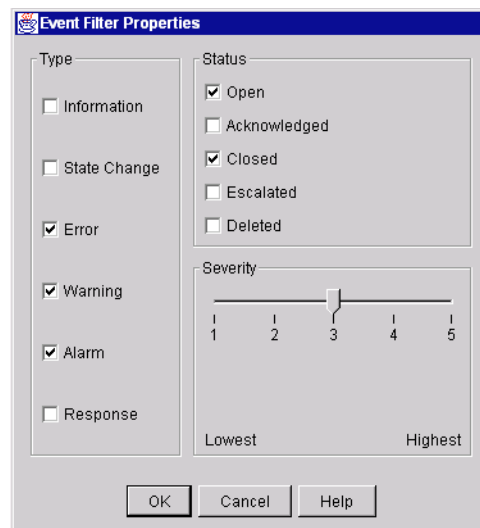
**Summary:** This task describes how to set the criteria and severity level for event data collection in the event filter.

---

**Step 1** From the Filter menu in the DataStore Console, choose **Event Filter**.

The Event Filter Properties dialog box is displayed.

**Figure 3-6 Event Filter Properties Dialog Box**



**Step 2** In the Type pane, select the types of events you want to filter.

**Step 3** In the Status pane, select the status of events you want to filter.

**Step 4** In the Severity pane, select the level that corresponds to the events you want collected.

**Step 5** Click **OK**.

# Blocking Extraneous Parameters

It is possible that one or more application classes (KMs) in the PATROL environment will create extraneous parameters that do not pertain to Service Reporting. If DataStore history retrievers retrieve a very large number of these parameters, the performance of the DataStore can be negatively affected.

The Namespace Blocking dialog box allows you to block the creation of parameters from a KM. You can also use the Namespace Blocking dialog box to unblock a previously blocked KM.

---

## Note

---

Blocking of parameters within a particular KM cannot be selectively performed; that is, all of the parameters created by a KM will be retrieved or none of the parameters collected by a KM will be retrieved.

---

By default, the Namespace Blocking dialog box pre-lists and blocks KMs that are known to create a large number of namespaces that otherwise do not pertain to Service Reporting. The KMs that are pre-listed and blocked in the Namespace Blocking dialog box are not needed by Service Reporting. As a result of pre-listing and blocking these KMs, the performance of the DataStore and subsequent performance of Service Reporting are significantly enhanced in some environments.



**Table 3-3 KMs pre-listed and blocked in the Namespace Blocking dialog box**

ACTIVEPROCESS	MSEXCH_Top_Folders
AMQ_QLOCAL	MSEXCH_Top_Mailboxes
F45_PROCESS_MONITOR	NFS
INET_Web_ClientHost	ORACLEUSERS
INET_Web_Url	PROCESS_CPU_USAGE
MSEXCH_Top_Receiver	VANTIVE_APP_USERS_CLIENTS
MSEXCH_Top_Senders	VANTIVE_DB_ACCELERATOR

---

**Tip**

In your environment, the list of blocked KMs may not be identical to the list of KMs displayed in Table 3-3. To ascertain which KMs have been blocked in your environment, you must display the Namespace Blocking dialog box. The Namespace Blocking dialog box can be displayed by selecting **Namespace Blocking** from the Filter menu in the DataStore Console.

---

There are two types of blocking:

- For a KM that has not yet been discovered and declared by a history retriever, you can block the creation of any extraneous parameters.
- For a KM that has already been discovered and declared by a history retriever, you can block the continued creation of extraneous parameters.

The following tasks can be performed in the Namespace Blocking dialog box:

- Blocking the creation of any extraneous parameters
- Blocking the continued creation of extraneous parameters
- Unblocking a blocked KM

The initial step in these tasks allows you to determine whether the KM in question has been discovered and declared by a history retriever.

# Blocking the Creation of Any Extraneous Parameters

**Summary:** Perform this task if the unnecessary KMs have not been discovered and declared by a history retriever. Step 2 of this task will allow you to determine whether a KM has already been discovered and declared by a history retriever. In order to perform this task, you must know which specific application classes (KMs) you desire to block.

## Warning

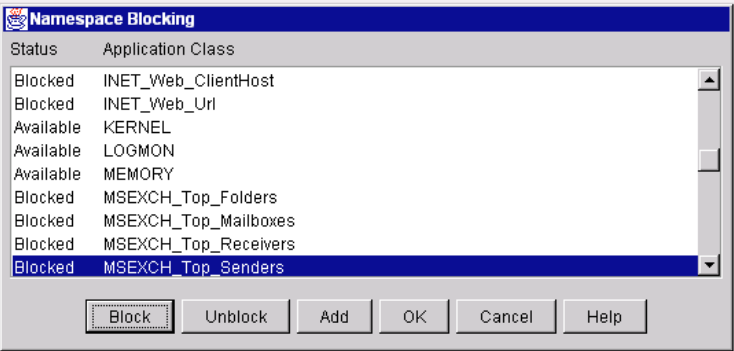
If you block a KM needed by Service Reporting, you will be negatively affecting the performance and effectiveness of Service Reporting.

## Steps

**Step 1** From the Filter menu in the DataStore Console, click **Namespace Blocking**.

The Namespace Blocking dialog box is displayed.

**Figure 3-7 Namespace Blocking dialog box**



**Step 2** Look for the desired Application Class (KM) in the Application Class column of the Namespace Blocking dialog box.

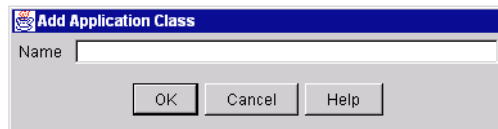
- If the KM is not listed, proceed to Step 3.

- If the KM is listed and the Status column indicates that the KM is already blocked, no further action needs to be taken.
- If the KM is listed and the Status column indicates that the KM is available, discontinue this task and see “Blocking the Continued Creation of Extraneous Parameters” on page 3-26.

**Step 3** In the Namespace Blocking dialog box, click **Add**.

The Add Namespace dialog box is displayed.

**Figure 3-8 Add Application Class dialog box**



**Step 4** In the Name field of the Add Application Class dialog box, enter the name of the Application Class (KM) you want to block.

---

**Note**

---

In the Add Application Class dialog box, you must enter the spelling and capitalization of the Application Class (KM) exactly as it is displayed in the PATROL Console.

---

**Step 5** In the Add Application Class dialog box, click **OK**.

The KM you entered in the Name field of the Add Application Class dialog box is displayed in the Namespace Blocking dialog box.

The Status field in the Namespace Blocking dialog box shows that this KM is blocked. As long as the Status field shows that this KM is blocked, no parameters from this KM will be created in the DataStore.

## Blocking the Continued Creation of Extraneous Parameters

---

**Summary:** Perform this task if the unnecessary KMs have already been discovered and declared by a history retriever. These KMs have already created extraneous parameters that will not be removed from the DataStore. However, because these KMs may continuously add more parameters over time, it may still be worthwhile to block them. Step 2 of this task will allow you to determine whether a KM has already been discovered and declared by a history retriever.

---

---

### Warning

---

If you select and block a KM needed by Service Reporting, you will be negatively affecting the performance and effectiveness of Service Reporting.

---

## Steps

**Step 1** From the Filter menu in the DataStore Console, click **Namespace Blocking**.

The Namespace Blocking dialog box is displayed. An image of the Namespace Blocking dialog box is in Figure 3-7 on page 3-24.

**Step 2** Look for the desired Application Class (KM) in the Application Class column of the Namespace Blocking dialog box.

- If the KM is listed and the Status column indicates that the KM is available, proceed to Step 3.
- If the KM is listed and the Status column indicates that the KM is already blocked, no further action needs to be taken.
- If the KM is not listed in the Application Class column, see “Blocking the Creation of Any Extraneous Parameters” on page 3-24.

**Step 3** Select a KM from the list of KMs in the Application Class column.

**Step 4** Click **Block**.

The Status field shows that this KM is blocked. When a KM is blocked, the affected history retrievers do not need to be restarted for the blocking to take effect. As long as the Status field shows that this KM is blocked, no additional parameters from this KM will be created in the DataStore.

## Unblocking a Blocked KM

---

**Summary:** Use this task to allow the creation of parameters from a KM that has been previously blocked.

---

### Steps

**Step 1** From the Filter menu in the DataStore Console, click **Namespace Blocking**.

The Namespace Blocking dialog box is displayed. An image of the Namespace Blocking dialog box is in Figure 3-7 on page 3-24.

The list of KMs in the Application Class column includes all KMs that have been discovered and declared by a history retriever. This list also includes all KMs that have been added to the list through the Add Application Class dialog box. Any KM that has been previously blocked will display **Blocked** in the Status column.

**Step 2** Select a blocked KM from the list of KMs in the Application Class column.

**Step 3** Click **Unblock**.

The Status field shows that this KM is available. However, the actual collection of parameters from this KM will not begin until each of the affected history retrievers is stopped and restarted.

This additional action is required because of the potential harm caused by the inadvertent unblocking of a previously blocked KM. Once you have restarted each history retriever, and for as long as the Status field shows that this KM is available, parameters from this KM will be created in the DataStore.

- To stop a history retriever, see “Stopping a History Retriever” on page 6-14. If the history retriever's Automatic Restart setting is on, the history retriever will stop and automatically restart. However, if the history retriever's Automatic Restart is off, you must then restart the history retriever. To restart a history retriever, see “Starting a History Retriever” on page 6-13.
- For information about setting a history retriever's Automatic Restart feature, see “Configuring a Local History Retriever” on page 6-10 and “Configuring Remote History Retrievers” on page 6-28.

Unlike history retrievers, event retrievers do not have a separate declaration phase. Therefore, event retrievers affected by the unblocking of a KM do not need to be restarted.





# Summarizing, Retrieving, and Retaining Data

This chapter describes how to manually summarize data, schedule data retrieval, and set data retention properties in the data aggregator.

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# Data Summarization Overview

Service Reporting is the main data analysis and reporting tool that uses data from the DataStore. Service Reporting utilizes summarized data; it does not use raw data. To meet the needs of Service Reporting, DataStore is designed so that all parameter data collected by history retrievers is automatically summarized before being stored in the DataStore.

However, there are two exceptions in which you can choose to store raw, unsummarized data in the DataStore. In the first exception, you can choose to collect raw data from an Open Data Retriever and store it in the DataStore. In the second exception, you can choose to forward raw parameter data from a history retriever and store it in the DataStore. For more information, see “Manual Data Summarization” on page 4-7.

In these exceptions, the data is not subject to automatic data summarization. As needed, you can manually summarize this data in the DataStore.

Event data can also be collected, summarized, and stored in the DataStore. It can then be used by Service Reporting.

Following is a discussion of automatic data summarization, manual data summarization, and event data summarization.

## Automatic Data Summarization

Automatic data summarization is performed for all data collected by a history retriever. All automatic data summarization processes are pre-configured. There are no user settings to configure.

Automatic data summarization summarizes data into several time periods. These time periods are:

- Hourly
- Daily
- Weekly
- Monthly

Following is a description of the summarization process for each of these time periods.

## **Hourly Summaries**

Each history retriever summarizes the raw parameter data it collected in the previous hour. Hourly summarization is always performed once per hour.

Hourly summarization occurs on the history retriever's local machine and is based on that machine's clock. After hourly summarization, the summarized data is forwarded to the data aggregator.

The hourly summaries include data for each complete hour. For example, the summary that occurs at 0900 includes data from 08:00:00 through 08:59:59.

For each hourly summarization, all of the parameter data collected by the history retriever during the previous hour is summarized into the following data points:

- Minimum
- Maximum
- Sum
- Average
- Count
- Sum of the Squares

## **Daily Summaries**

Daily summarization of parameter data is performed by the data aggregator. Daily summarization is always performed once per day.

To perform the daily summary, the data aggregator rolls up the hourly summaries provided by the history retrievers. Each day begins immediately after midnight and ends at the following midnight. Each daily summary is based on the data aggregator's local clock, adjusted for the timezone selected for summarization.

Daily summarization is offset to run two hours after the close of the previous day. The two hour offset helps ensure that all incoming hourly summarizations are included in the daily summary, regardless of system clock discrepancies and processing time delays. Data that originates during the offset period is not summarized until the next summarization.

## **Weekly Summaries**

Weekly summarization of parameter data is performed by the data aggregator. Weekly summarization is always performed once per week.

To perform the weekly summary, the data aggregator rolls up the daily summaries. Each week begins at 00:00:00 on Sunday; each week ends at 23:59:59 on Saturday. Each weekly summary is based on the data aggregator's local clock, adjusted for the timezone selected for summarization.

Weekly summarization is offset to run two hours after the close of the previous week. The two hour offset helps ensure that all incoming hourly summarizations are included in the daily summaries that will be rolled up for the weekly summarization, regardless of system clock discrepancies and processing time delays. Data that originates during the offset period is not summarized until the next summarization.

## **Monthly Summaries**

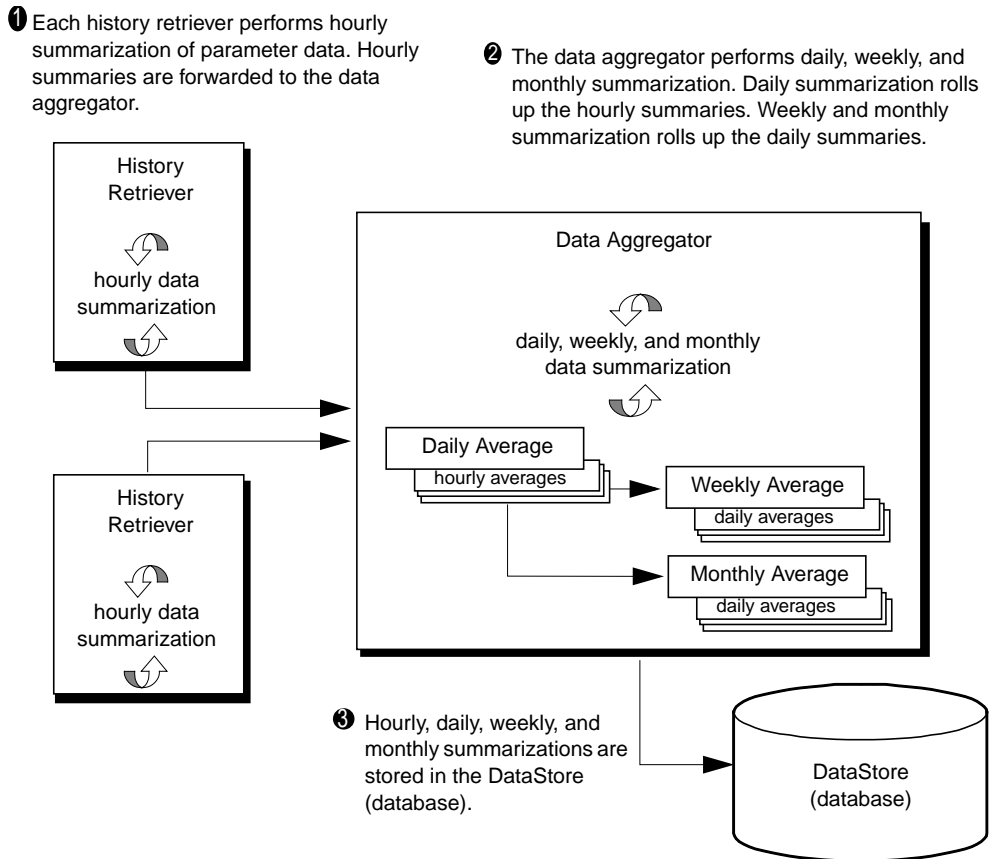
Monthly summarization of parameter data is performed by the data aggregator. Monthly summarization is always performed once per month.

To perform the monthly summary, the data aggregator rolls up the daily summaries. Each month begins at 00:00:00 on the first day of the month; each month ends at 23:59:59 on the last day of the month. Each monthly summary is based on the data aggregator's local clock, adjusted for the timezone selected for summarization.

Monthly summarization is offset to run two hours after the close of the previous month. The two hour offset helps ensure that all incoming hourly summarizations are included in the daily summaries that will be rolled up for the monthly summarization, regardless of system clock discrepancies and processing time delays. Data that originates during the offset period is not summarized until the next summarization.

Figure 4-1 illustrates the flow of parameter data as automatic data summarization converts raw parameter data into summarized parameter data.

**Figure 4-1 Overview of Automatic Parameter Data Summarization**



## Viewing Automatic Data Summarization Schedules

---

**Summary:** This task describes how to open the Summary Schedule dialog box in order to view the date and time of the preceding run and of the next run for daily, weekly, and monthly summarization. The information in this dialog box is limited to summarization occurring in the data aggregator. Because hourly summarization occurs in the individual history retrievers, information about hourly summarization is not displayed in the Summary Schedules dialog box. There are no user settings in this dialog box.

---

» From the Summary menu in the DataStore Console, select **Schedule**.

The Summary Schedule dialog box is displayed.

**Figure 4-2 Summary Schedule dialog box**



# Manual Data Summarization

You can choose to store raw, unsummarized data in the DataStore. If this raw, unsummarized data needs to be summarized before being used by a data analysis or reporting tool, you must perform manual data summarization.

---

## Warning

---

Do not perform manual summarization if you are not collecting raw data in the DataStore. The first action of manual summarization automatically purges any summary that has previously been performed on data below the selected namespace level. This can occur even if the raw data needed for the new summary no longer exists in the DataStore. If the raw data no longer exists and the existing summary has already been deleted, the new summary cannot be created and the deleted summary cannot be reproduced. The data aggregator will try to prevent this occurrence; however, it cannot prevent it in every instance. To minimize this effect, you should always perform manual summarization as far down into the namespace hierarchy as possible.

---

There are two possible sources of raw data in the DataStore, as follows:

- Raw data can be collected from an Open Data Retriever. Because an Open Data Retriever sends raw data to the DataStore and Service Reporting utilizes summarized data, manual data summarization must be performed on data from an Open Data Retriever before it can be utilized by Service Reporting (for more information, see “Collecting CSV Data with the dump\_hist Utility” on page 7-8).
- Raw parameter data can be forwarded from a history retriever. This, however, should only be done in special circumstances. (for more information, see “Creating a History Filter” on page 3-7)

Following is a discussion of manual data summarization as it applies to data from these two sources.

## Manual Summarization of Raw Data from an Open Data Retriever

Data collected by an Open Data Retriever is not summarized automatically. You must manually run the summarization process for this data. When manual summarization is performed, the data aggregator completes the appropriate hourly, daily, weekly, and monthly summaries.

---

### Note

It is possible for the DataStore to store raw data from an Open Data Retriever as well as raw parameter data from one or more history retrievers. The manual summarization process will not distinguish between the two sets of raw data. When you run a manual summary in this situation, raw parameter data from the history retrievers will be included in the summary of raw data from the Open Data Retriever. For more information, see “Manual Summarization of Raw Parameter Data from a History Retriever” on page 4-8.

---

You can run a manual summary from the Data tab of the DataStore Console (for more information, see Performing Manual Summarization 4-10.) Alternatively, you can add scripts to automate the summarization of data collected by an Open Data Retriever (for more information, see “Summarizing CSV Data with AggCLI” on page 7-11).

## Manual Summarization of Raw Parameter Data from a History Retriever

An individual history filter can be set so that the parameter data it identifies will be forwarded to the data aggregator as raw data and as hourly summarized data. You cannot select to forward raw data only. Once a history filter is enabled to allow the forwarding of raw data, it will continue to do so until it is disabled.

---

### Warning

Do not retrieve raw parameter data unless you have a specific reporting tool that requires raw data. Service Reporting does not use raw parameter data. Forwarding significant amounts of raw data to the data aggregator can seriously impact the performance of the DataStore.

---



Daily, weekly, and monthly summaries are never performed with raw data. Because any raw data you choose to collect is already included in the hourly summarization process, collected raw data is excluded from further summarization. There is, however, an exception to this exclusion. For more information about this exception, see “Performing Manual Summarization” on page 4-10.

---

**Note**

---

In the DataStore Console, the history chart is the only tool that references raw data in the DataStore. However, the history chart is not a reporting tool and is only used to check for the presence of raw data in the DataStore. Do not retrieve raw data if the sole justification for the retrieval is to check for its presence with a history chart. For more information about History Charts, see “History Charts and Event Charts” on page 2-31.

---

## Performing Manual Summarization

---

**Summary:** This task describes how to manually summarize data that has not been included in the automatic summarization process. This can include raw data from an Open Data Retriever as well as raw parameter data from a history retriever. This task can also be used to re summarize previously summarized data. Alternatively, scripts can be added to automate the summarization of raw data collected from an Open Data Retriever. For information, see “Summarizing CSV Data with AggCLI” on page 7-11.

---

---

### Warning

This task must be performed with caution. The collection of raw data and the manual summarization of raw data have complex ramifications. Before performing this task, you should be familiar with the information in “Manual Data Summarization” on page 4-7

---

- Step 1** In the DataStore Console, click the Data tab.
- Step 2** Select the namespace level that will be summarized.

---

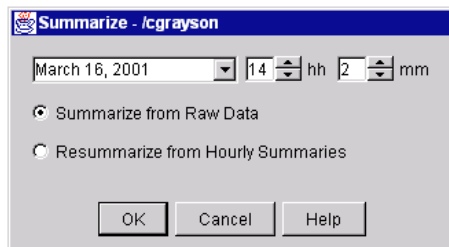
### Note

You should always perform manual summarization as far down in the namespace hierarchy as possible.

---

- Step 3** From the pop-up menu, choose **Summarize**.
- The Summarize dialog box is displayed.

**Figure 4-3 Summarize dialog box**



In the date, hh, and mm field, enter the date, hour, and minutes that mark the beginning of the time period for which manual summarization will be performed. All data collected since the date and time you select will be summarized.

For example, to begin the time period at 2:30 PM on the selected date, you would enter **14** in the **hh** field and **30** in the **mm** field. Select **Summarize from Raw Data**.

**Step 4** Click **OK**.

## Event Data Summarization

Service Reporting can be used to run reports based on automatically summarized event data. Unlike raw parameter data, automatic summarization of raw event data occurs entirely in the data aggregator. There is no manual summarization of raw event data.

Before raw event data is automatically summarized, it is forwarded to the data aggregator. Two hours after the end of each day, the data aggregator automatically summarizes that day's raw event data into hourly summaries. The aggregator then rolls up the hourly summaries to create a daily summary. At the end of each week, the data aggregator rolls up the daily summaries into a weekly summary. At the end of each month, the data aggregator rolls up the daily summaries into a monthly summary.

For each of the summary time periods, all of the event data is summarized into the following data points:

- Minimum
- Maximum
- Count
- Sum
- Average

# History Data Collection Settings

In the DataStore Console, you can configure various aspects of history data collection. The Retriever Properties dialog box provides tools for this purpose. The individual panes in the Retriever Properties dialog box are:

- The Retrieval Schedule pane
- The Retriever pane
- The Data Source pane
- The Operation Times pane

The Retrieval Schedule pane is discussed next. For information about the Retriever pane, the Data Source pane, and the Operation times pane, see “Viewing Retriever Properties” on page 2-27.

## The Retrieval Schedule Pane

The Retrieval Schedule pane provides several tools to control the collection of data. These tools are:

- **Start Time**—You can specify when the history retriever will begin to collect data.
- **Then Every**—You can specify how frequently the history retrievers will automatically forward summarized hourly data to the data aggregator.
- **Initial Limit**—You can limit the amount of data initially collected.

### The Selection and Impact of *Then Every* Settings

When DataStore is first installed, the default “Then Every” setting is one hour. The one hour “Then Every” setting means that all hourly summaries are forwarded to the data aggregator once each hour.

You can select to increase the “Then Every” setting. For example,

- If you change the “Then Every” setting to two hours, the two most recent hourly summaries are forwarded to the data aggregator only after the second hourly summary is complete.
- If you change the “Then Every” setting to three hours, the three most recent hourly summaries are forwarded to the data aggregator only after the third hourly summary is complete.

---

**Note**

---

The Hours field under “Then Every” will not allow entries less than one. If any value greater than two is entered, the following message is displayed: “Warning: You have made a questionable data entry. Setting the retrieval frequency (then every) higher than two hours may cause the daily summaries to run too late to be included in the Solution Reports. If the start time of the reports has been changed from the installed default (4:30 AM), then this may not be a problem.”

---

If you are going to change the initial default “Then Every” settings, you must understand how these settings can impact the availability of data for reports. Following is a discussion of the relationship between data summarization and data collection.

Beginning at the time the hourly summarized data is scheduled to be forwarded from the history retriever, the data aggregator automatically waits two hours before further summarizing any hourly summary from that period. This waiting period is called the offset.

The two hour offset helps ensure that all incoming hourly summarizations are included in the subsequent summaries, regardless of system clock discrepancies and processing time delays. Data that originates during the offset period is not summarized until the next summarization. For more information about the two hour offset period, see “Automatic Data Summarization” on page 4-2.

Before summarized data for any time period is available for Service Reporting, the two hour offset for that data must be completed. The following tables illustrate different “Then Every” settings and their effect on the availability of summarized data for Service Reporting.

**Table 4-1 Data Availability with One hour “Then Every” Setting**

<b>Hour Summarized</b>	<b>When Forwarded to the Data Aggregator</b>	<b>When Available after Two Hour Offset</b>
00:00:00 to 00:59:59	As soon as the summary is complete	03:00:00
01:00:00 to 01:59:59	As soon as the summary is complete	04:00:00
02:00:00 to 02:59:59	As soon as the summary is complete	05:00:00
03:00:00 to 03:59:59	As soon as the summary is complete	06:00:00
04:00:00 to 04:59:59	As soon as the summary is complete	07:00:00
05:00:00 to 05:59:59	As soon as the summary is complete	08:00:00

**Table 4-2 Data Availability with Two hour “Then Every” Settings**

<b>Hour Summarized</b>	<b>When Forwarded to the Data Aggregator</b>	<b>When Available after Two Hour Offset</b>
00:00:00 to 00:59:59	The two separate summaries are forwarded only after the second summary is complete.	04:00:00
01:00:00 to 01:59:59		
02:00:00 to 02:59:59	The two separate summaries are forwarded only after the second summary is complete.	06:00:00
03:00:00 to 03:59:59		
04:00:00 to 04:59:59	The two separate summaries are forwarded only after the second summary is complete.	08:00:00
05:00:00 to 05:59:59		

**Table 4-3 Data Availability with Three hour “Then Every” Settings**

<b>Hour Summarized</b>	<b>When Forwarded to the Data Aggregator</b>	<b>When Available after Two Hour Offset</b>
00:00:00 to 00:59:59	The three separate summaries are forwarded only after the third summary is complete.	05:00:00
01:00:00 to 01:59:59		
02:00:00 to 02:59:59		
03:00:00 to 03:59:59	The three separate summaries are forwarded only after the third summary is complete.	08:00:00
04:00:00 to 04:59:59		
05:00:00 to 05:59:59		

## Scheduling the Retrieval of History Data

---

**Summary:** This task describes using the Retriever Properties dialog box to schedule and limit the initial retrieval of data from a history retriever as well as schedule the subsequent retrieval of data from a history retriever. For more information about other uses of the Retriever Properties dialog box, see “Data Retriever Management” on page 2-26.

---

---

### Warning

---

The settings you select with this task can negatively impact the availability of data for reports. You should be familiar with the information in “History Data Collection Settings” on page 4-12 before performing this task.

---

- Step 1** In the DataStore Console, click the **Configuration** tab.
- Step 2** Click a data aggregator to expand it.
- Step 3** Right-click a history retriever.
- Step 4** From the pop-up menu, choose **Properties**.

The Retriever Properties dialog box is displayed.

**Figure 4-4 Retriever Properties Dialog Box for a history retriever**

The screenshot shows the 'Retriever Properties - dhorsey' dialog box. It is divided into four main sections: 'Retriever', 'Data Source', 'Retrieval Schedule', and 'Operation Times'. The 'Retriever' section shows 'Type: History Retriever', 'Version: 1.2.00', and 'Data Aggregator: pauslab2'. The 'Data Source' section shows 'Source: Patrol Agent', 'Host Name: dhorsey', 'Domain:', 'Port: 3181', and 'Version: V3.4.00'. The 'Retrieval Schedule' section has 'Start Time' set to 0 Hours and 0 Minutes, 'Then Every' set to 1 Hour and 0 Minutes, and 'Initial Limit' set to 3 Days. The 'Operation Times' section shows 'Startup: 06/04/2001 09:03', 'Last Update: 06/04/2001 09:04', 'Last Shutdown:', and 'Time Offset: 72 Seconds'. At the bottom are 'OK', 'Cancel', and 'Help' buttons.

Retriever		Data Source	
Type:	History Retriever	Source:	Patrol Agent
Version:	1.2.00	Host Name:	dhorsey
Data Aggregator:	pauslab2	Domain:	
		Port:	3181
		Version:	V3.4.00

Retrieval Schedule		Operation Times	
Start Time:	0 Hours 0 Minutes	Startup:	06/04/2001 09:03
Then Every:	1 Hours 0 Minutes	Last Update:	06/04/2001 09:04
Initial Limit:	3 Days	Last Shutdown:	
		Time Offset:	72 Seconds

OK Cancel Help



**Step 5** In the Retrieval Schedule pane, provide the following information:

**Table 4-4 Daily Collection Options**

Field	Description
Start Time	<p>Used for a retriever's initial start or for a restart, this field specifies when the history retriever will begin to collect data. On Startup, retrievers are assigned slightly staggered start times so that data is sent to the aggregator in a more even manner.</p> <p>Enter the amount of time after 12:00 A.M. that the history retriever will wait before it first collects data after being started. For example, if you enter 45 minutes and the "Then Every" setting is 1 hour, the history retriever will run at 45 minutes after each hour.</p>
Then Every	<p>By default, history retrievers collect data once every hour from the moment the history retriever is started. This default setting remains in effect until the Then Every field is reconfigured.</p> <p>Enter the amount of time you want to elapse between each cycle of data collection. For example, if you enter 1 hour, the history retriever will collect data at 1 hour intervals.</p> <p>The Hours field will not allow entries less than one. If a value greater than two is entered in the Hours field, a warning message will be displayed. For more information, see "The Selection and Impact of Then Every Settings" on page 4-12.</p>
Initial Limit	<p>This setting is important if data collection has not been previously performed or has not been performed for a long period of time. This setting tells the retriever how far back it should go into the history of a PATROL Agent.</p> <p>In a regular data collection cycle, the history retriever will only look as far back as the previous collection.</p> <p>Enter the number of days that the history retriever should go back into the history of an agent to retrieve data.</p>

**Step 6** Click **OK**.

## Time Zone Selection for Data Summarization

By default, data is summarized in the DataStore using the GMT time zone. To change that default, you must use the Time Zones dialog box. When you change the specified time zone, the change becomes effective at the next data summarization.

By default, the DataStore stores the raw measurement values for PATROL parameters using the GMT (Greenwich Mean Time) time zone. During data summarization, the summary data timestamps are converted to the time zone specified in the Time Zones dialog box. For more information on selecting a time zone for data summarization, see “Selecting a Time Zone” on page 4-19.

---

### Warning

---

Changing the time zone used for summarization can make a portion of the previously collected data unavailable to the Report Server. This impact is largest on monthly reports. Furthermore, if you make any change in the time zone settings, you must ensure that Service Reporting is correctly synchronized with the DataStore. Otherwise, you will not be able to successfully generate reports. For more information, see “Report Server and DataStore Time Zone Synchronization” on page 8-7.

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## Selecting a Time Zone

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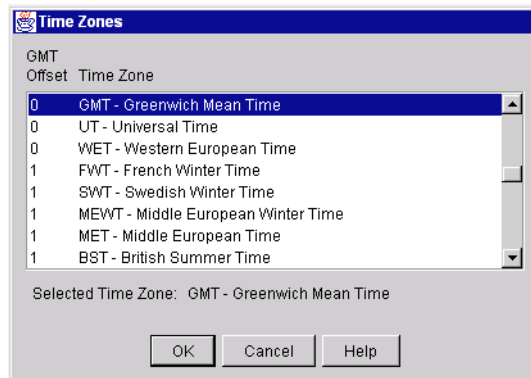
**Summary:** This task describes how to select the time zone used for the data summarization process.

---

**Step 1** From the Summary menu in the DataStore Console, select **Timezone**.

The Time Zones dialog box is displayed.

**Figure 4-5 Time Zones Dialog Box**



**Step 2** In the Time Zones list box, select a time zone and click **OK**.

## Data Retention Settings

The DataStore administrator can determine the length of time that the DataStore retains summarized data, plus any raw data that you may have selected for collection. These settings are controlled in the Data Retention Properties dialog box. When DataStore is installed, the Data Retention Properties dialog box is set to the following default retention periods:

- Raw data is retained for 35 days.
- Hourly summarizations are retained for 35 days.
- Daily summarizations are retained for 3 months.
- Weekly summarizations are retained for 12 months.
- Monthly summarizations are retained for 60 months.

## Selecting Data Retention Periods

---

**Summary:** This task describes how to set the length of time that raw data, summarized history data, and summarized event data are retained in the DataStore.

---

---

### Warning

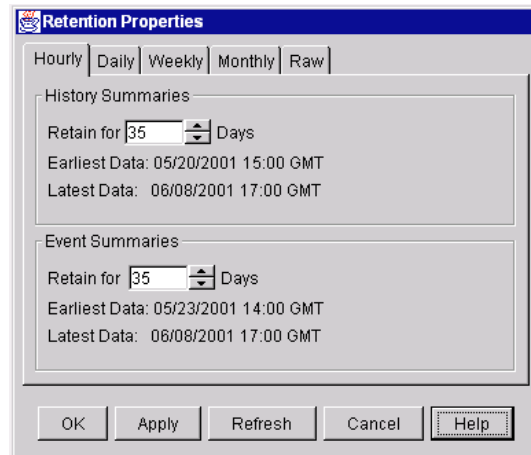
When data retention periods are shortened, data that is outside the new retention period must be purged from the DataStore. The time required to purge data is dependent upon the amount of data to be purged. Purging significant amounts of data may take a significant amount of time.

---

**Step 1** From the Options menu, choose **Data Retention**.

The Retention Properties dialog box is displayed.

**Figure 4-6 Retention Properties Dialog Box**



**Step 2** On the Raw tab, the Hourly tab, the Daily tab, the Weekly tab, and the Monthly tab, set the retention periods as follows:

**Table 4-5 Data Retention Options**

Tab	Setting
Raw	<p>The Raw tab controls the retention and purging of raw parameter history data and raw event data. The retention settings on the Raw tab determine how long raw parameter history data and raw event data are retained. Raw parameter history data and raw event data that exceed the retention period are automatically purged. Purged data is not archived.</p> <p>Set the length of time that raw history data and raw event data will be retained in the DataStore. By default, raw data is retained for 35 days.</p> <p>The Raw tab also displays the date of the earliest and latest raw parameter history data and raw event data that is available.</p>
Hourly	<p>The Hourly tab provides for the retention of hourly summarizations of parameter data and event data. Retention periods are in one day increments. Summarizations that exceed the retention period are purged. Purged data is not archived.</p> <p>Set the length of time that hourly summarizations will be retained in the DataStore. By default, hourly summarized data is retained for 35 days.</p> <p>The Hourly tab also displays the dates of the earliest and latest data that is available in the form of hourly summarizations.</p>
Daily	<p>The Daily tab provides for the retention of daily summarizations of parameter data and event data. Retention periods are in one month increments. Summarizations that exceed the retention period are purged. Purged data is not archived.</p> <p>Set the length of time that daily summarizations will be retained in the DataStore. By default, daily summarized data is retained for 3 months.</p> <p>The Daily tab also displays the dates of the earliest and latest data that is available in the form of daily summarizations.</p>

**Table 4-5 Data Retention Options**

Tab	Setting
Weekly	<p>The Weekly tab provides for the retention of weekly summarizations of parameter data and event data. Retention periods are in one month increments. Summarizations that exceed the retention period are purged. Purged data is not archived.</p> <p>Set the length of time that weekly summarizations will be retained in the DataStore. By default, weekly summarized data is retained for 12 months.</p> <p>The Weekly tab also displays the dates of the earliest and latest data that is available in the form of weekly summarizations.</p>
Monthly	<p>The Monthly tab provides for the retention of monthly summarizations of parameter data and event data. Retention periods are in one month increments. Summarizations that exceed the retention period are purged. Purged data is not archived.</p> <p>Set the length of time that monthly summarizations will be retained in the DataStore. By default, monthly summarized data is retained for 60 months.</p> <p>The Monthly tab also displays the dates of the earliest and latest data that is available in the form of monthly summarizations.</p>

**Step 3** Click **OK** to apply the settings and close the dialog box.

# Organizing Collected Data

This chapter contains information about creating and assigning associations used to organize collected data for reports. This chapter also contains information about adding labels and descriptions to those associations.

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## Association Overview

Associations are assigned to data in the DataStore. These associations are then used to help select the data that is displayed in a report. There are three association types:

- Categories
- Locations
- Organizations

To be useful, associations must reflect the reporting needs of your environment. Therefore, no associations are initially defined. You must create the individual categories, locations, or organizations that depict your environment. For each category, location, and organization, you will select a namespace that identifies the data with which it will be associated.

---

### Note

---

For all associations, at least one level of the namespace must be specified. The DataStore Console will not allow you to create an association for the namespace `*/*/*/*`. In addition, associations cannot be created for namespace items that are related exclusively to event data.

---

As parameter data is collected from the namespace you have selected, the data is recorded with its associated category, location, or organization in the DataStore. The specific associations you have created can then be used by Service Reporting or other data analysis and reporting tools to help select the data that will appear in a report.

You can use any one, any two, or all three of the association types. This allows flexibility when selecting data for reports. For example, if you associated one set of data with all three association types, you could then include that data in a report based on categories, in another report based on locations, and in third report based on organizations. A discussion of each the three association types follows.



## Category Associations

Category associations can be created at any level of the namespace. Because category associations are not hierarchical, more than one category can be associated with a particular namespace. Categories are allowed to overlap without causing conflict in the DataStore.

For example, you could create the following category associations:

- NT\_HOST, associated with the namespace **HostA/\*\*/\***
- MS\_APP, associated with the namespace **\*/MSACCESS/\*\*/\***
- ACCOUNTS\_PAYABLE\_COMPONENT, associated with the namespace **\*/MSACCESS/AccountsPayable/\***
- DEFAULT\_PARAMETER, associated with the namespace **\*/MSACCESS/\*/TransactionCount**

In this example, data associated with all of these category associations would be selected by a report that used the namespace **HostA/MSAccess/AccountsPayable/TransactionCount**.

## Location Associations

Location associations must be assigned at the node level of the namespace. Location associations cannot overlap and cannot cause conflict when associating with data.

Location associations are hierarchical and can be used to define container relationships. For example, you could create a location association called Texas. As subsets of the Texas location, you could create a location association called Houston and another location association called Dallas. You could then associate the Houston location with the namespace **HostA/\*\*/\***. You could also associate the Dallas location with the namespace **HostB/\*\*/\***. Data from the Houston location would include data from Host A. Data from the Dallas location would include data from Host B. Because the Houston location and the Dallas location are both subsets of the Texas location, data from the Texas location would include data from both Host A and Host B.

## Organization Associations

Organization associations can be associated with data at the node level of the namespace, the application class level of the namespace, and the application instance level of the namespace. However, organizations cannot use the parameter level of the namespace to associate with data. Organization associations are hierarchical.

### Potential Organization Overlap

Organizations overlap when two or more organization association namespaces attempt to associate one set of data with more than one organization. The possibility of organization overlap exists because organization associations are hierarchical and can be assigned at several levels of the namespace.

In any environment, the DataStore Console will identify and prevent most organization overlap. However, the DataStore Console cannot detect all possible organization overlap.

Following is a hypothetical example of organizational overlap. In this example, the environment contains multiple servers. All of the servers in this environment are running a Knowledge Module named NT\_CPU. One of the servers, named HR1, belongs to Human Resources.

In this environment, two organization associations have been created.

- The first organization association, named InfoServices, uses the namespace **\*/NT\_CPU/\*/\***. This organization uses the application class level of the namespace to identify all data from the Knowledge Module named NT\_CPU. This organization will associate all data coming from the NT\_CPU Knowledge Module with the InfoServices organization.
- The second organization, named HumanResources, uses the namespace **HR1/\*/\*\*/\***. This organization uses the node level of the namespace to identify all data from the Human Resources server. This organization will associate all data coming from the Human Resources server with the HumanResources organization.

In this example, data from the NT\_CPU Knowledge Module on the Human Resources server is associated with both organizations. An organization overlap occurs because the data can be associated with only one organization. In this example, it is not possible to predict which of the two organizations will be recorded with data from the NT\_CPU Knowledge Module on the Human Resources server named HR1. In reality, this specific example could not exist because it would have been identified and prevented by the DataStore Console.

---

**Tip**

---

In general, the chance of organization conflict is reduced when organization associations are created as low as possible in the namespace.

---

## Creating a Category Association

---

**Summary:** This task describes how to create a category association. The categories you create will be used to sort the data you specify. Category associations can be used in the creation of reports. For information about editing the fields for an existing category association, see “Editing an Existing Category Association” on page 5-8.

---

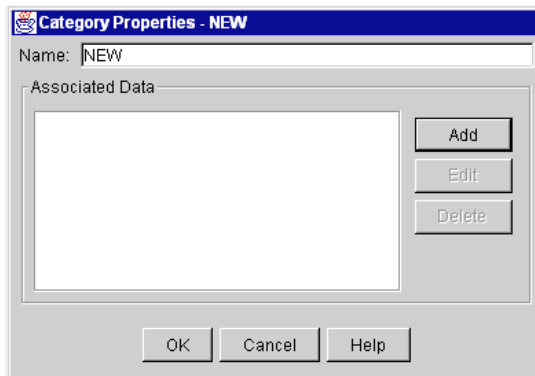
**Step 1** In the DataStore Console, click the **Associations** tab.

**Step 2** Right-click **Categories**.

**Step 3** From the pop-up menu, click **Add**.

The Category Properties dialog box is displayed.

**Figure 5-1 Category Properties Dialog Box**

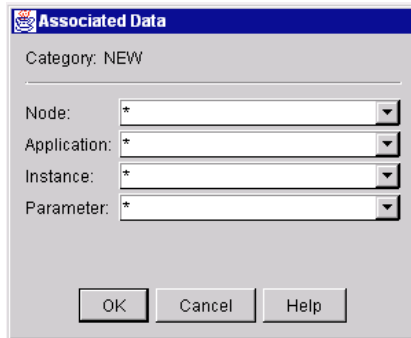


**Step 4** In the Name field, enter the name of the category.

**Step 5** In the Associated Data pane, click **Add**.

The Associated Data dialog box is displayed.

**Figure 5-2 Associated Data Dialog Box**



- Step 6** In the Associated Data dialog box, select a Node, an Application, an Instance, and a Parameter.

---

**Note**

Namespace items that are related exclusively to event data are not displayed in the drop-down menus of the Associated Data dialog box.

---

- Step 7** Click **OK** in the Associated Data dialog box.
- Step 8** Click **OK** in the Category Properties dialog box.

## Editing an Existing Category Association

---

**Summary:** This task describes how to edit the various fields of an existing Category Association. For information about creating a new category association, see “Creating a Category Association” on page 5-6.

---

**Step 1** In the DataStore Console, click the **Associations** tab.

**Step 2** Double-click on **Categories** to expand the list of category associations.

**Step 3** Right-click on a category association.

A pop-up menu is displayed.

**Step 4** From the pop-up menu, click **Properties**.

The Category Properties dialog box is displayed. An image of the Category Properties dialog box is in Figure 5-1 on page 5-6.

**Step 5** In the Name field, edit the name of the category.

**Step 6** In the Associated Data pane, highlight the namespace and click **Edit**.

The Associated Data dialog box is displayed. Namespace items that are related exclusively to event data are not displayed in the Associated Data dialog box. An image of the Associated Data dialog box is in Figure 5-2 on page 5-7.

---

### Note

---

To delete a namespace from the Associated Data pane in the Categories Properties dialog box, highlight the namespace and click **Delete**.

---

**Step 7** In the Associated Data dialog box, use the drop-down menus to edit the Node, Application, Instance, or Parameter.

The selections you make in this step specify the parameter data that will be tagged with the category association that is displayed in the Name field.

**Step 8** Click **OK** in the Associated Data dialog box.

The namespace you created in the Associated Data dialog box is displayed in the Associated Data pane of the Category Properties dialog box.

**Step 9** Click OK in the Category Properties dialog box.

## Creating a Location Association

---

**Summary:** The following task describes how to create a location association. You can also use this task to create a sub-location. A sub-location is a subset of a more general location. The locations you create will be used to sort data. Location associations can be used in the creation of reports. Optional steps can be used to provide information available only to the operator of the DataStore Console. For information about editing an existing location association, see “Editing an Existing Location Association” on page 5-15.

---

**Step 1** In the DataStore Console, click the **Associations** tab.

**Step 2** Right-click **Locations**.

A pop-up menu is displayed.

---

### Note

---

You can create locations that are subsets, or sub-locations, of an existing location. For example, you could create a location association called Texas. As subsets of that location association, you could create a location association called Houston and another location association called Dallas. To create a location that is a subset of an existing location, right-click on the existing location.

---

**Step 3** From the pop-up menu, click **Add**.

The Location Properties dialog box is displayed.



**Figure 5-3 Location Properties Dialog Box**

The screenshot shows a standard Windows-style dialog box titled "Location Properties". It features several input fields and buttons. The "Location" field is a text box containing "New Location". The "Type" field is a drop-down menu currently showing "None Selected", with an "Edit..." button to its right. The "Time Zone" field is another drop-down menu showing "GMT - Greenwich Mean Time". Below these is a "Description" text box. The bottom section, labeled "Associated Data", contains a large empty text box and three buttons: "Add", "Edit", and "Delete". At the very bottom of the dialog are "OK", "Cancel", and "Help" buttons.

**Step 4** Enter a name for the location in the Location field.

**Step 5** (Optional) From the Type drop-down list, select a type for the location.

It is not necessary to make a selection in this list. This selection is not used in any way to sort data and is not reflected in any reports. It is displayed only in this dialog box.

You can use this text box for any location type you find helpful. For example, if the location is a city, you might use this text box to specify a building in that city. For more information on creating a location type, see “Creating a Location Type” on page 5-13

**Step 6** (Optional) In the Time Zone field, select a time zone that represents the source of the collected data.

It is not necessary to make a selection in this field. This selection is not used in any way to sort data and is not reflected in any reports. It is displayed only in this dialog box.

You can use this text box for any time zone information you find helpful. Typically, you will select either GMT or the time zone that represents the source of the data being collected.

**Step 7** (Optional) In the Description field, enter a brief description for the location.

It is not necessary to enter a description in this field. This selection is not used in any way to sort data and is not reflected in any reports. It is displayed only in this dialog box.

You can use this field to record any description you find useful. For example, if the location is Building 3, you might use this field to further specify an office number.

**Step 8** In the Associated Data pane, click **Add**.

The Associated Data dialog box is displayed. An image of the Associated Data dialog box is in Figure 5-2 on page 5-7.

**Step 9** In the Associated Data dialog box, select a node from the drop-down menu.

---

**Note**

---

Namespace items that are related exclusively to event data are not displayed in the Associated Data dialog box.

---

**Step 10** In the Associated Data dialog box, click **OK**.

**Step 11** In the Location Properties dialog box, click **OK**.

## Creating a Location Type

---

**Summary:** The following task describes how to create a location type that will be displayed in the Type menu of the Location Properties dialog box. The creation of a location type is optional. For information about deleting or renaming an existing location type, see “Renaming or Deleting an Existing Location Type” on page 5-17.

---

### Before You Begin

Before you can create a location type, you must first create the appropriate location association. For information about creating a new location association, see “Creating a Location Association” on page 5-10.

### Steps to Create a Location Type

**Step 1** In the DataStore Console, click the **Associations** tab.

**Step 2** Right-click **Locations**.

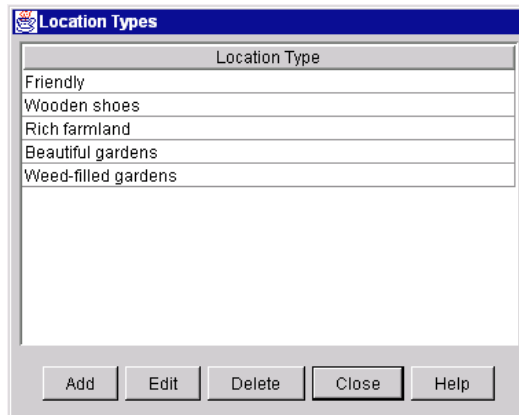
**Step 3** From the pop-up menu, choose **Add**.

The Location Properties dialog box is displayed. An image of the Location Properties dialog box is in Figure 5-3 on page 5-11.

**Step 4** In the Location Properties dialog box, click **Edit**.

The Location Types dialog box is displayed.

**Figure 5-4 Location Types Dialog Box**



**Step 5** Click **Add**.

The Location Type dialog box is displayed.

**Figure 5-5 Location Type Dialog Box**



**Step 6** In the Name field of the Location Type-New dialog box, enter the new location type and click **OK**.

**Step 7** In the Location Types dialog box, click **Close**.

The new location type is displayed in the Type field of the Location Properties dialog box.

## Editing an Existing Location Association

---

**Summary:** This task describes how to edit the various fields of an existing location association. For information about creating a new location association, see “Creating a Location Association” on page 5-10.

---

**Step 1** In the DataStore Console, click the **Associations** tab.

**Step 2** Double-click on **Locations** to expand the list of location associations.

**Step 3** Right-click on a location association.

A pop-up menu is displayed.

**Step 4** From the pop-up menu, click **Properties**.

The Location Properties dialog box is displayed. An image of the Location Properties dialog box is in Figure 5-3 on page 5-11.

**Step 5** In the Location field, edit the name of the location.

**Step 6** (Optional) From the Type drop-down list box, edit the location type.

It is not necessary to make a selection in this field. This selection is not used in any way to sort data and is not reflected in any reports. It is displayed only in the Location Properties dialog box. You can use this field for any location type you find helpful. For example, if the location is a city, you might use this field to specify a building in that city.

**Step 7** (Optional) In the Time Zone text box, edit the time zone that represents the source of the collected data.

It is not necessary to make a selection in this field. This selection is not used in any way to sort data and is not reflected in any reports. It is displayed only in the Location Properties dialog box. You can use this field for any time zone information you find helpful. Typically, you will select either GMT or the time zone that represents the source of the collected data.

**Step 8** (Optional) In the Description text box, edit the description for the location.

It is not necessary to make a selection in this field. This selection is not used in any way to sort data and is not reflected in any reports. It is displayed only in the Location Properties dialog box. You can use this field to record any description you find useful. For example, if the location is Building 3, you might use this field to further specify an office number.

**Step 9** In the Associated Data pane, highlight the namespace and click **Edit**.

The Associated Data dialog box is displayed. Namespace items that are related exclusively to event data are not displayed in the Associated Data dialog box. An image of the Associated Data dialog box is in Figure 5-2 on page 5-7.

---

**Note**

---

To delete a namespace from the Associated Data pane in the Location Properties dialog box, highlight the namespace and click **Delete**.

---

**Step 10** In the Associated Data dialog box, use the drop-down menu to edit the node.

Select a node that resides in the geographic location you identified in the Location field. The data from the selected node will be associated with the location you created in the Location field.

**Step 11** In the Associated Data dialog box, click **OK**.

**Step 12** In the Location Properties dialog box, click **OK**.

## Renaming or Deleting an Existing Location Type

---

**Summary:** This task describes how to rename or delete an existing location type. The changes you make will affect the display of location types in the Type menu of the Location Properties dialog box. For information about creating a location type, see “Creating a Location Type” on page 5-13.

---

**Step 1** In the DataStore Console, click the **Associations** tab.

**Step 2** Right-click **Locations**.

A pop-up menu is displayed.

**Step 3** From the pop-up menu, choose **Add**.

The Location Properties dialog box is displayed. An image of the Location Properties dialog box is in Figure 5-3 on page 5-11.

**Step 4** In the Location Properties dialog box, click **Edit**.

The Location Types dialog box is displayed. An image of the Location Types dialog box is in Figure 5-4 on page 5-14.

**Step 5** In the Location Types dialog box, select an existing location type.

**Step 6** Select and complete one of the following two options:

(Option 1) To rename the selected location type, click **Edit**. The Location Types dialog box is displayed. Enter a new name in the name field of the Location Type dialog box and click **OK**.

(Option 2) To delete the selected location type, click **Delete**.

**Step 7** In the Location Types dialog box, click **Close**.

## Creating an Organization Association

---

**Summary:** The following task describes how to create an organization association. The organizations you create will be used to sort data. Organizations can be used in the creation of reports. An optional step can be used to provide information available only to the operator of the DataStore Console.

---

**Step 1** In the DataStore Console, click the **Associations** tab.

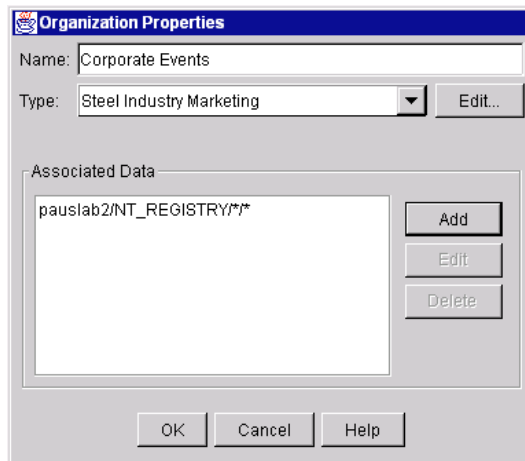
**Step 2** Right-click **Organizations**.

A pop-up menu is displayed.

**Step 3** From the pop-up menu, click **Add**.

The Organization Properties dialog box is displayed.

**Figure 5-6 Organization Properties Dialog Box**



**Step 4** In the Name text box, enter the name of the organization.

**Step 5** (Optional) From the Type drop-down list, select an Organization Type.

It is not necessary to make a selection in this field. This selection is not used in any way to sort data and is not reflected in any reports. It is displayed only in this dialog box.



You can use this text box for any organization type you find helpful. For example, if the organization is Information Services, you might use this text box to specify Desktop Support. For more information on creating an organization type, see “Creating an Organization Type” on page 5-20.

**Step 6** In the Associated Data pane, click **Add**.

The Associated Data dialog box is displayed. An image of the Associated Data dialog box is in Figure 5-2 on page 5-7.

**Step 7** In the Associated Data dialog box, select a Node, an Application, an Instance, and a Parameter.

---

**Note**

---

Namespace items that are related exclusively to event data are not displayed in the Associated Data dialog box.

---

**Step 8** In the Association Filter dialog box, click **OK**.

**Step 9** In the Organization Properties dialog box, click **OK**.

## Creating an Organization Type

---

**Summary:** The following task describes how to create an organization type that will be displayed in the Type menu of the Organization Properties dialog box. This task is optional.

---

### Before You Begin

Before you can create an organization type, you must first create the appropriate organization in the Organization Properties dialog box. For more information about using the Organization Properties dialog box, see “Creating an Organization Association” on page 5-18.

### Steps to Create an Organization Type

**Step 1** In the DataStore Console, click the **Associations** tab.

**Step 2** Right-click **Organizations**.

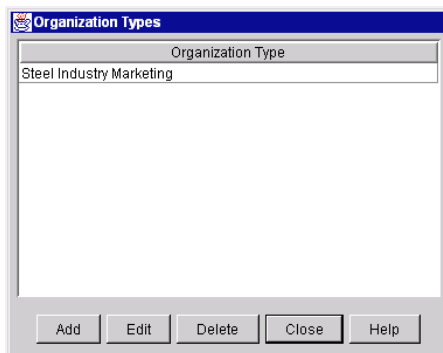
**Step 3** From the pop-up menu, click **Add**.

The Organization Properties dialog box is displayed. An image of the Organization Properties dialog box is in Figure 5-6 on page 5-18.

**Step 4** In the Organization Properties dialog box, click **Edit**.

The Organization Types dialog box is displayed.

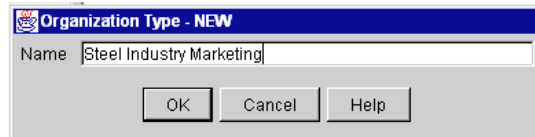
**Figure 5-7 Organization Types Dialog Box**



**Step 5** In the Organization Types dialog box, click **Add**.

The Organization Type dialog box is displayed.

**Figure 5-8 Organization Type dialog box**



**Step 6** In the Name field of the Organization Type-New dialog box, enter the new organization type and click **OK**.

**Step 7** In the Organization Types dialog box, click **Close**.

The new organization type is displayed in the Type field of the Organization Properties dialog box.

## Editing an Existing Organization Association

---

**Summary:** This task describes how to edit the various fields of an existing organization association. For information about creating a new organization association, see “Creating an Organization Association” on page 5-18.

---

**Step 1** In the DataStore Console, click the **Associations** tab.

**Step 2** Double-click on **Organizations** to expand the list of organization associations.

**Step 3** Right-click on a category association.

A pop-up menu is displayed.

**Step 4** From the pop-up menu, click **Properties**.

The Organization Properties dialog box is displayed. An image of the Organization Properties dialog box is in Figure 5-6 on page 5-18.

**Step 5** In the Name field, edit the name of the organization.

**Step 6** (Optional) From the Type drop-down list, edit the Organization Type.

It is not necessary to make a selection in this field. This selection is not used in any way to sort data and is not reflected in any reports. It is displayed only in the Organization Properties dialog box.

You can use this field for any organization type you find helpful. For example, if the organization is Information Services, you might use this text box to specify Desktop Support.

**Step 7** In the Associated Data pane, highlight the namespace and click **Edit**.

The Associated Data dialog box is displayed. Namespace items that are related exclusively to event data are not displayed in the Associated Data dialog box. An image of the Associated Data dialog box is in Figure 5-2 on page 5-7.

---

**Note**

---

To delete the namespace from the Associated Data pane in the Organization Properties dialog box, highlight the namespace and click **Delete**.

---

**Step 8** In the Associated Data dialog box, use the drop-down menus to edit the Node, Application, or Instance.

The selections you make in this step specify the parameter data that will be tagged with the organization association you created in the Name field.

**Step 9** In the Associated Data dialog box, click **OK**.

**Step 10** In the Organization Properties dialog box, click **OK**.

## Renaming or Deleting an Existing Organization Type

---

**Summary:** This task describes how to rename or delete an existing organization type. The changes you make will affect the display of location types in the Type menu of the Organization Properties dialog box. For information about creating a new organization type, see “Creating an Organization Type” on page 5-20

---

**Step 1** In the DataStore Console, click the **Associations** tab.

**Step 2** Right-click **Organizations**.

A pop-up menu is displayed.

**Step 3** From the pop-up menu, choose **Add**.

The Organization Properties dialog box is displayed. An image of the Organization Properties dialog box is in Figure 5-6 on page 5-18.

**Step 4** In the Organization Properties dialog box, click **Edit**.

The Organization Types dialog box is displayed. An image of the Organization Types dialog box is in Figure 5-7 on page 5-20.

**Step 5** In the Organization Types dialog box, select an existing organization type.

**Step 6** Select and complete one of the following two options:

(Option 1) To rename the organization type, click **Edit**. The Organization Type dialog box is displayed. Enter a new name in the name field of the Organization Type dialog box and click **OK**. An image of the Organization Type dialog box is in Figure 5-8 on page 5-21.

(Option 2) To delete the selected organization type, click **Delete**.

**Step 7** In the Organization Types dialog box, click Close.

## Labels, Units, and Descriptions Overview

Labels, units, and descriptions can be added to data in the DataStore. Labels and units will then appear in reports to help clarify the data. Descriptions will only appear in the DataStore Console. Labels, units, and descriptions are not used to help select the data that is displayed in reports.

Labels and descriptions can be added to parameter data from the node level, application class level, application instance level, or parameter level. Units can be added to parameter data only at the parameter level.

Some parts of this information are added using the Data tab, while other parts of this information are added using the Labels tab.

- For more information about using the Data tab for this task, see “Adding a Label and Description to a Node or to an Application Instance” on page 5-26.
- For more information about using the Labels tab for this task, see “Adding a Label and Description to an Application Class” on page 5-28 and “Adding a Label, Units, and Description to a Parameter” on page 5-30.

## Adding a Label and Description to a Node or to an Application Instance

---

**Summary:** This task describes how to add label and description information to data from a node or application instance. Label and description information is displayed in reports. Labels can be used to assign a user-friendly name to a node or application instance. Descriptions can be used to provide any additional information you find useful.

---

**Step 1** In the DataStore Console, click the **Data** tab.

**Step 2** Right-click a node or application instance.

---

### Note

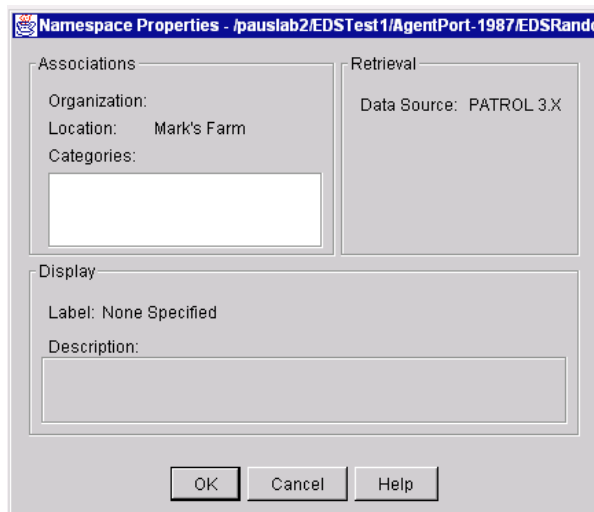
If you right-click an application class or parameter, you will only be able to view the existing association information, retrieval information, and label, unit, and description information.

---

**Step 3** From the pop-up menu, choose **Properties**.

The Namespace Properties dialog box is displayed.

**Figure 5-9 Namespace Properties Dialog Box**





The Associations pane displays information about the associations you created on the Associations tab. If you want to change this association information, you must go back to the Associations tab. For information about creating and changing associations, see “Association Overview” on page 5-2.

**Step 4** In the Display pane, provide the following information:

**Table 5-1 Information in the Display pane of the Namespace Properties dialog box**

Field	Description
Label	Enter a label name for the namespace item. Labels can be used to assign a user-friendly name to data from a set of parameters. For example, the node hrbkoff could be assigned the label Human Resources Back Office.
Description	Enter a description for the namespace item. You can use this description to provide any additional information you find useful.

**Step 5** Click **OK**.

## Adding a Label and Description to an Application Class

---

**Summary:** This task describes how to add label and description information to data from an application class. Label and description information is displayed in reports. Labels can be used to assign a user-friendly name to an application class. Descriptions can be used to provide any additional information you find useful.

---

**Step 1** In the DataStore Console, click the Labels tab.

---

### Note

The Labels tab displays only the application class level and the parameter level of the PATROL namespace hierarchy. All KMs are on the application class level.

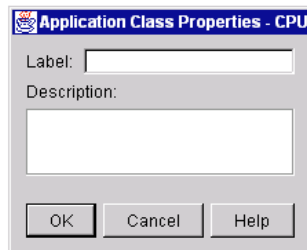
---

**Step 2** Right-click a Knowledge Module.

**Step 3** From the pop-up menu, choose **Properties**.

The Application Class Properties dialog box is displayed.

**Figure 5-10 Application Class Properties Dialog Box**



**Step 4** In the Application Class Properties dialog box, provide the following information:

**Table 5-2 Information in the Application Class Properties dialog box**

Field	Description
Label	Enter a label name for the KM. Labels can be used to assign a user-friendly name to a KM. For example, if you had a KM named COMPARCH, you could assign it the label Compressed Archives.
Description	Enter a description for the namespace item. You can use this description to provide any additional information you find useful.

**Step 5** Click **OK**.

## Adding a Label, Units, and Description to a Parameter

---

**Summary:** This task describes how to add label, units, and description information to parameter data in the DataStore. Labels and units appear in reports. Labels can be used to assign a user-friendly name to a parameter. Units identify the type of unit, such as GB or KB, being used to report parameter data. Descriptions appear only in the DataStore Console and can be used to provide any additional information you find useful.

---

**Step 1** In the DataStore Console, click the Labels tab.

---

### Note

The Labels tab displays only the application class level and the parameter level of the PATROL namespace hierarchy.

---

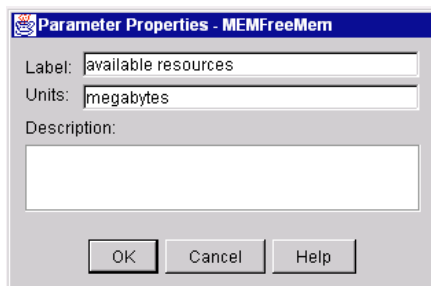
**Step 2** Click on a KM to expand the list down to the parameter level.

**Step 3** Right-click a parameter.

**Step 4** From the pop-up menu, choose **Properties**.

The Parameter Properties dialog box is displayed.

**Figure 5-11 Parameter Properties dialog box**



**Step 5** In the Parameter Properties dialog box, provide the following information:

**Table 5-3 Information in the Parameter Properties dialog box**

Field	Description
Label	Enter a label name for the namespace item. Labels can be used to assign a user-friendly name to a parameter. For example, the parameter CPUprcrProcssorTimePercent could be assigned the label NT CPU Busy Time.
Units	Enter a unit, such as GB or KB, that identifies the unit size of the parameter data.
Description	Enter a description for the namespace item. You can use this description to provide any additional information you find useful.

**Step 6** Click **OK**.

## Viewing Association, Display, and Retrieval Information

---

**Summary:** This task describes how to view the associations, labels, units, and descriptions that have been given to data. It also describes how to view information pertaining to the retrieval of the selected data.

---

- Step 1** In the DataStore Console, click the **Data** tab.
- Step 2** Right-click a node, application class, application instance, or parameter.
- Step 3** From the pop-up menu, choose **Properties**.

The Namespace Properties dialog box is displayed. This dialog box contains an Association pane, a Display pane, and a Retrieval pane. An image of the Namespace Properties dialog box is in Figure 5-9 on page 5-26.

**Table 5-4 Information in the Namespace Properties dialog box**

<b>Pane</b>	<b>Information Displayed</b>
Associations pane	Displays any organization, location, or category that has been associated with data from the selected namespace item
Retrieval pane	<p>Lists information about the retrieval of data from the selected namespace item.</p> <p>If you have selected a namespace item above the parameter level, only the source of the data is listed.</p> <p>If you have selected a namespace item at the parameter level, listed information includes the</p> <ul style="list-style-type: none"><li>• source of the data</li><li>• status of data collection</li><li>• time of last collection</li></ul>
Display pane	<p>Lists label, description, and unit information.</p> <p>If you have selected a namespace item above the parameter level, only label and description information is listed.</p> <p>If you have selected a namespace item at the parameter level, label, description, and unit information is listed.</p> <p>Descriptions appear only in the DataStore Console and do not appear in reports. The description field is used for information that may be useful to the DataStore administrator.</p>





# Configuring DataStore Components

This chapter describes how to configure, start, and stop the different components of DataStore as well as view log and error messages.

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# Data Collection Components

In DataStore, data collection components must be configured so that retrievers are connected to the data aggregator and the data aggregator is connected to the DataStore.

The DataStore Knowledge Module is configured from a PATROL Operator Console or PATROL Developer Console. The DataStore KM allows you to configure, start, stop, and monitor data aggregators and retrievers in your environment. Data aggregators can be configured locally; retrievers can be configured locally or remotely.

Local configuration limits your configuration to the data aggregator or retriever located on the computer to which you have a PATROL Console connection. With remote configuration, you can configure multiple retrievers on any computer in your environment that is running a PATROL Agent. Before using remote configuration, you must add the remote host to the remote host list.

## Loading the Knowledge Module

---

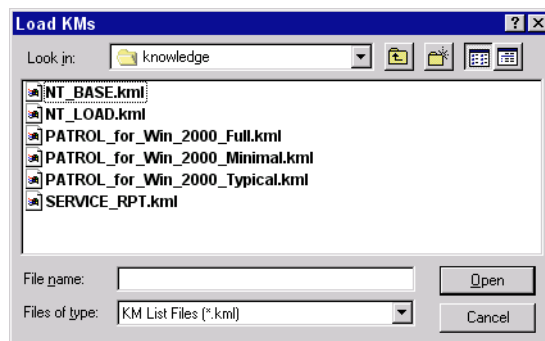
**Summary:** This task describes how to load the Knowledge Module into a PATROL Console.

---

**Step 1** In a PATROL Console, choose **File => Load KM**.

The Load KMs dialog box is displayed.

**Figure 6-1 Load KMs dialog box**



**Step 2** Locate the file **SERVICE\_RPT.kml** and click **Open**.

The SR\_DATASTORE application class is displayed in the PATROL Console after a discovery cycle. Icons representing any Aggregator or Retriever instances will appear under SR\_DATASTORE after their respective executables have been located during the subsequent discovery cycle.

## Configuring a Local Data Aggregator

---

**Summary:** This task describes how to configure a local data aggregator.

---

**Step 1** In a PATROL Console, click the **SR\_DATASTORE** application class to expand it.

**Step 2** Right-click the **Aggregator** application instance.

A pop-up menu is displayed.

**Step 3** From the pop-up menu, choose **KM Commands => Administration => Configure Aggregator**.

The Aggregator Configuration dialog box is displayed.

**Figure 6-2 Aggregator Configuration Dialog Box**

Aggregator Configuration (amber:3181)

Database Host:

Database Port:

Database Instance:

Database Username:

Database Password:

Aggregator Port:

Logging Level: ☐ Off  
☐ 1 (Least Detail)  
☐ 2  
☐ 3 (Medium Detail)  
☒ 4  
☐ 5 (Most Detail)

KM Preferences

Automatic Restart: ☐ Off  
☒ On

☒ Preload KM

**Step 4** Provide the following information.

**Table 6-1 Aggregator Configuration Information**

Field	Description
Database Host	Enter the name of the computer hosting the DataStore.
Database Port	Enter the port number the data aggregator uses to connect to the DataStore.  The default port number is 1521.
Database Instance	Enter the name of the DataStore.  The default name is BMCEDS.
Database Username	Enter the name of the user connecting to the DataStore.  The default username is EDA_USER.
Database Password	Enter the password used to access the DataStore.  The default password is EDA.
Aggregator Port	Enter the port number the retrievers use to connect to the data aggregator.  The default port number is 4568.
Logging Level	Select the level of information detail you want displayed in the log files in the Log dialog box. <ul style="list-style-type: none"><li>• Higher numbers increase the level of detail.</li><li>• Lower numbers decrease the level of detail.</li></ul> By default, Logging Level 3 is pre-selected.  For more information about the Log dialog box, see “Viewing DataStore KM Component Logs” on page 6-35.

**Table 6-1     Aggregator Configuration Information**

Field	Description
Automatic Restart	Select <b>Off</b> or <b>On</b> . If Automatic Restart is on and the data aggregator stops for any reason, the data aggregator will automatically restart.
Preload KM	Select this check box to add the SR_DATASTORE KM and the SR_AGGREGATOR KM to the preloaded KM list of the PATROL Agent. This allows these KM files to be automatically loaded when the agent is restarted.

**Step 5     Click Save.**

Changes to the Automatic Restart or Preload KM settings will not cause the aggregator to stop and restart. However, any change to any of the other settings in the Aggregator Configuration dialog box will cause the following:

- If the aggregator is already running and Automatic Restart is on, the aggregator will be stopped and automatically restarted.
- If the aggregator is already running and Automatic Restart is off, the aggregator will be stopped. You must then manually restart the aggregator.
- If the aggregator is not running, it will not be started unless you manually start it or set Automatic Restart to On.

For more information about manually starting an aggregator, see “Starting a Data Aggregator” on page 6-7.

## Starting a Data Aggregator

---

**Summary:** This task describes how to start a data aggregator.

---

**Step 1** In a PATROL Console, click the **SR\_DATASTORE** application class to expand it.

**Step 2** Right-click the **Aggregator** application instance.

A pop-up menu is displayed.

**Step 3** From the pop-up menu, choose **KM Commands => Actions => Start Aggregator**.

The data aggregator starts accumulating information from the retrievers.

## Stopping a Data Aggregator

---

**Summary:** Stopping a data aggregator turns the aggregator off. History data will continue to be collected and temporarily stored by the PATROL Agent. When the data aggregator is restarted, it will resume normal operation and accept whatever history data is forwarded from the history retrievers running on the PATROL Agent. Event data generated during the period the aggregator is stopped will be lost.

---

**Step 1** In a PATROL Console, click the **SR\_DATASTORE** application class to expand it.

**Step 2** Right-click the **Aggregator** application instance.

A pop-up menu is displayed.

**Step 3** From the pop-up menu, choose **KM Commands => Actions => Stop Aggregator**.

---

### Note

If the automatic restart feature in the Aggregator Configuration dialog box is on, the data aggregator will automatically restart. To turn off Automatic Restart for a data aggregator, see “Configuring a Local Data Aggregator” on page 6-4.

---

---

### Warning

If, after completing this procedure, you receive a message stating that the aggregator was not able to stop successfully, you must use another procedure to terminate the aggregator. However, you should always perform the steps in Stopping a Data Aggregator before you terminate it. For more information, see “Terminating a Data Aggregator” on page 6-9.

---



## Terminating a Data Aggregator

---

**Summary:** When you use this task to terminate a data aggregator, history data will continue to be collected and temporarily stored by the PATROL Agent. When the data aggregator is restarted, it will resume normal operation and accept whatever history data is forwarded from the history retrievers running on the PATROL Agent. Event data generated during the period the aggregator is stopped will be lost.

---

---

### Warning

Before performing this task, complete the actions in “Stopping a Data Aggregator” on page 6-8. If that task is not able to stop the data aggregator, you will receive a message stating that the data aggregator was not able to stop successfully.

---

**Step 1** In a PATROL Console, click the **SR\_DATASTORE** application class to expand it.

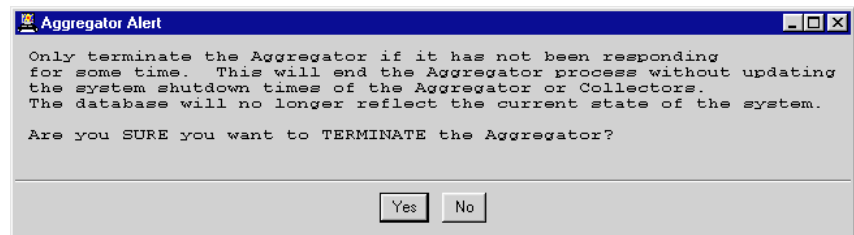
**Step 2** Right-click the **Aggregator** application instance.

A pop-up menu is displayed.

**Step 3** From the pop-up menu, choose **KM Commands => Actions => Terminate Aggregator**.

The Aggregator Alert dialog box is displayed.

**Figure 6-3 Aggregator Alert Dialog Box**



**Step 4** Click **Yes** to confirm that you want to terminate the data aggregator.

## Configuring a Local History Retriever

---

**Summary:** This task describes how to configure a local history retriever. For information about configuring remote history retrievers, see “Configuring Remote History Retrievers” on page 6-28.

---

**Step 1** In a PATROL Console, click the **SR\_DATASTORE** application class to expand it.

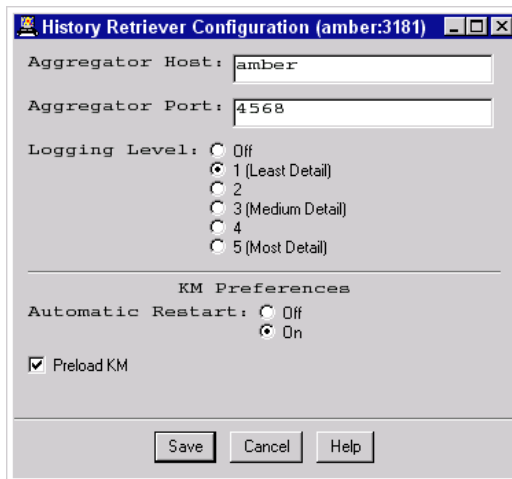
**Step 2** Right-click the **HistoryRet\_<port>** application instance.

A pop-up menu is displayed.

**Step 3** From the pop-up menu, choose **KM Commands => Administration => Configure History Retriever**.

The History Retriever Configuration dialog box is displayed.

**Figure 6-4 History Retriever Configuration Dialog Box**



The dialog box is titled "History Retriever Configuration (amber:3181)". It contains the following fields and options:

- Aggregator Host:** Text field containing "amber".
- Aggregator Port:** Text field containing "4568".
- Logging Level:** Radio button group with options: Off, 1 (Least Detail), 2, 3 (Medium Detail), 4, and 5 (Most Detail). Option 1 is selected.
- KM Preferences:**
  - Automatic Restart:** Radio button group with options Off and On. Option On is selected.
  - Preload KM:** Checked checkbox.
- Buttons:** Save, Cancel, and Help.

**Step 4** Provide the following information:

**Table 6-2 History Retriever Configuration Information**

Field	Description
Aggregator Host	Enter the name of the computer hosting the data aggregator.
Aggregator Port	Enter the port number the history retriever uses to connect to the data aggregator.  The default port number is 4568.
Logging Level	Select the level of information detail you want displayed in the log files in the Log dialog box. <ul style="list-style-type: none"><li>• Higher numbers increase the level of detail.</li><li>• Lower numbers decrease the level of detail.</li></ul> By default, Logging Level 3 is pre-selected.  For more information about the Log dialog box, see “Viewing DataStore KM Component Logs” on page 6-35.  For more information about the messages displayed in the Log dialog box at each Logging level, see “Sample Retriever Log Files” on page C-1.
Automatic Restart	Select <b>Off</b> or <b>On</b> . If Automatic Restart is on and the history retriever stops for any reason, the history retriever will automatically restart.
Preload KM	Select this check box to add the SR_DATASTORE KM and the SR_HISTORYRET KM to the preloaded KM list of the PATROL Agent. This allows these KM files to be automatically loaded when the agent is restarted.

**Step 5** Click **Save**.

Changes to the Automatic Restart or Preload KM settings will not cause the history retriever to stop and restart. However, any change to any of the other settings will cause the following:

- If the history retriever is already running and Automatic Restart is on, the history retriever will be stopped and automatically restarted.

- If the history retriever is already running and Automatic Restart is off, the history retriever will be stopped. You must then manually restart the history retriever.
- If the history retriever is not running, it will not be started unless you manually start it or set Automatic Restart to On.

For information about manually starting a history retriever, see “Starting a History Retriever” on page 6-13.

## Starting a History Retriever

---

**Summary:** This task describes how to start a history retriever.

---

- Step 1** In a PATROL Console, click the **SR\_DATASTORE** application class to expand it.
- Step 2** Right-click the **HistoryRet\_<port>** application instance.
- A pop-up menu is displayed.
- Step 3** From the pop-up menu, choose **KM Commands => Actions => Start History Retriever**.

## Stopping a History Retriever

---

**Summary:** This task describes how to stop a history retriever.

---

**Step 1** In a PATROL Console, click the **SR\_DATASTORE** application class to expand it.

**Step 2** Right-click the **HistoryRet\_<port>** application instance.

A pop-up menu is displayed.

**Step 3** From the pop-up menu, choose **KM Commands => Actions => Stop History Retriever**.

---

### Note

---

If the automatic restart feature for this history retriever is on, this history retriever will automatically restart. To turn off Automatic Restart for a local history retriever, see “Configuring a Local History Retriever” on page 6-10. To turn off Automatic Restart for a remote history retriever, see “Configuring Remote History Retrievers” on page 6-28.

---

## Configuring a Local Event Retriever

**Summary:** This task describes how to configure a local event retriever. For information about configuring a remote event retriever, see “Configuring Remote Event Retrievers” on page 6-31.

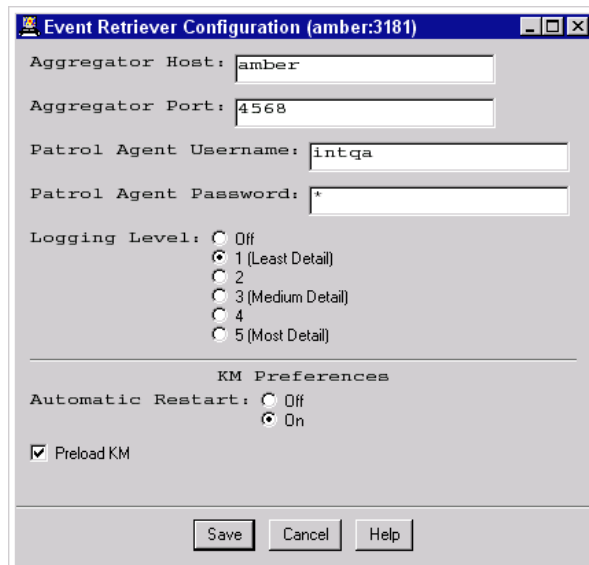
**Step 1** In a PATROL Console, click the **SR\_DATASTORE** application class to expand it.

**Step 2** Right-click the **EventRet\_<port>** application instance.

A pop-up menu is displayed.

**Step 3** From the pop-up menu, choose **KM Commands => Administration => Configure Event Retriever**.

**Figure 6-5 Event Retriever Configuration Dialog Box**



The dialog box is titled "Event Retriever Configuration (amber:3181)". It contains the following fields and options:

- Aggregator Host:
- Aggregator Port:
- Patrol Agent Username:
- Patrol Agent Password:
- Logging Level:
  - ☐ Off
  - ☒ 1 (Least Detail)
  - ☐ 2
  - ☐ 3 (Medium Detail)
  - ☐ 4
  - ☐ 5 (Most Detail)
- KM Preferences**
  - Automatic Restart:
    - ☐ Off
    - ☒ On
  - ☒ Preload KM

At the bottom are three buttons: **Save**, **Cancel**, and **Help**.

**Step 4** Provide the following information.

**Table 6-3 Event Retriever Configuration Information**

Field	Description
Aggregator Host	Enter the name of the computer hosting the data aggregator.
Aggregator Port	Enter the port number the event retriever uses to connect to the data aggregator.  The default port number is 4568.
PATROL Agent Username	Enter the PATROL Agent username.
PATROL Agent Password	Enter the PATROL Agent password.
Logging Level	Select the level of information detail you want displayed in the log files in the Log dialog box. <ul style="list-style-type: none"><li>• Higher numbers increase the level of detail.</li><li>• Lower numbers decrease the level of detail.</li></ul> By default, Logging Level 3 is pre-selected.  For more information about the Log dialog box, see “Viewing DataStore KM Component Logs” on page 6-35.  For more information about the messages displayed in the Log dialog box at each Logging level, see “Sample Retriever Log Files” on page C-1.
Automatic Restart	Select <b>Off</b> or <b>On</b> . If Automatic Restart is on and the event retriever stops for any reason, the event retriever will automatically restart.
Preload KM	Select this check box to add the SR_DATASTORE KM and the SR_EVENTRET KM to the preloaded KM list of the PATROL Agent. This allows these KM files to be automatically loaded when the agent is restarted.

**Step 5** Click **Save**.

Changes to the Automatic Restart or Preload KM settings will not cause the event retriever to stop and restart. However, any change to any of the other settings will cause the following:



- If the event retriever is already running and Automatic Restart is on, the event retriever will be stopped and automatically restarted.
- If the event retriever is already running and Automatic Restart is off, the event retriever will be stopped. You must then manually restart the event retriever.
- If the event retriever is not running, it will not be started unless you manually start it or set Automatic Restart to On.

For information about manually starting an event retriever, see “Starting an Event Retriever” on page 6-18.

## Starting an Event Retriever

---

**Summary:** This task describes how to start and stop an event retriever.

---

**Step 1** In a PATROL Console, click the **SR\_DATASTORE** application class to expand it.

**Step 2** Right-click the **EventRet\_<port>** application instance.

A pop-up menu is displayed.

**Step 3** From the pop-up menu, choose **KM Commands => Start Event Retriever**.

## Stopping an Event Retriever

---

**Summary:** This task describes how to stop an event retriever.

---

**Step 1** In a PATROL Console, click the **SR\_DATASTORE** application class to expand it.

**Step 2** Right-click the **EventRet\_<port>** application instance.

A pop-up menu is displayed.

**Step 3** From the pop-up menu, choose **KM Commands => Actions => Stop Event Retriever**.

---

### Note

---

If the automatic restart feature for this event retriever is on, this event retriever will automatically restart. To turn off Automatic Restart for a local event retriever, see “Configuring a Local Event Retriever” on page 6-15. To turn off Automatic Restart for a remote event retriever, see “Configuring Remote Event Retrievers” on page 6-31.

---

## Providing a User-Friendly Alias for a Managed Node

---

**Summary:** This task describes how to provide a managed node with a user-friendly alias. The managed node's alias will appear in Service Reporting reports and in the DataStore Console. The name that the PATROL Agent and PATROL Console use for the managed node will not change.

---

---

### Note

A managed node is any machine in the environment that is running an aggregator or retriever. The name the DataStore uses for a managed node is called the DataStore node name. By default, the DataStore node name is provided by the PATROL Agent and is the same name that the PATROL Agent uses for the managed node. Service Reporting will use the DataStore node name to identify the managed node. This dialog box is provided because the default name from the PATROL Agent may not be ideal for reporting purposes.

---

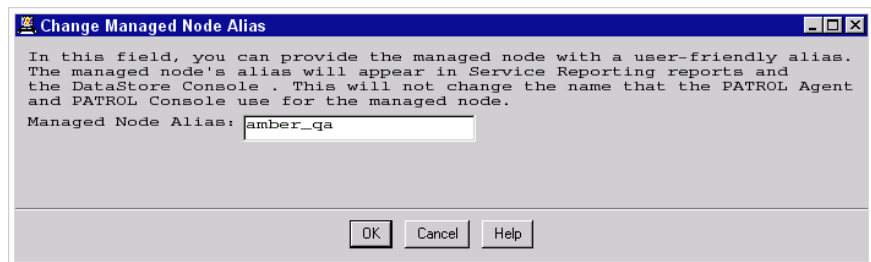
**Step 1** In a PATROL Console, right-click the **SR\_DATASTORE** application class.

A pop-up menu is displayed.

**Step 2** From the pop-up menu, choose **KM Commands => Change Managed Node Alias**.

The Change Managed Node Alias dialog box is displayed.

**Figure 6-6 Change Managed Node Alias Dialog Box**

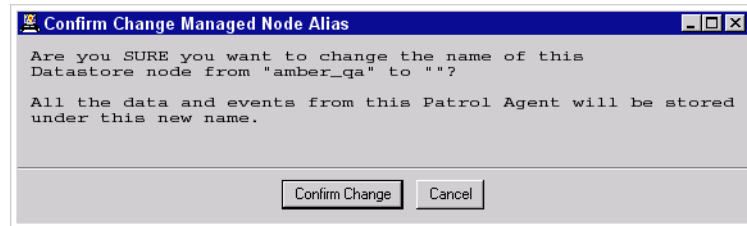


**Step 3** Enter the new name in the Change Managed Node Alias dialog box.

**Step 4** Click **OK**.

The Confirm Change Managed Node Alias dialog box is displayed.

**Figure 6-7 Confirm Change Managed Node Alias Dialog Box**



**Step 5** In the Confirm Change Managed Node Alias dialog box, click **Confirm Change**.

The retrievers and aggregator are restarted. Data and events are recorded in the DataStore under the alias you specified.

# Remote Configuration of Data Collection Components

Because you may be deploying many identically configured history and event retrievers throughout your enterprise, the DataStore KM provides a way to configure them remotely. In this circumstance, you will not have to connect to the PATROL Agent on each separate node. Remote configuration allows you to set the aggregator host to configure the Automatic Restart setting, the log level, and the Preload KM setting for many retrievers at once.

## Performing Remote Configuration

Before you can perform a remote configuration, the remote host computers must be added to the remote host list. After the retrievers and their KMs are installed on all the machines you want to monitor, pick one to use as the base from which to perform the remote configuration. This could be any machine that has the DataStore KM installed and loaded.

## Adding Remote Hosts

---

**Summary:** This task describes how to add a remote computer to the remote host list.

---

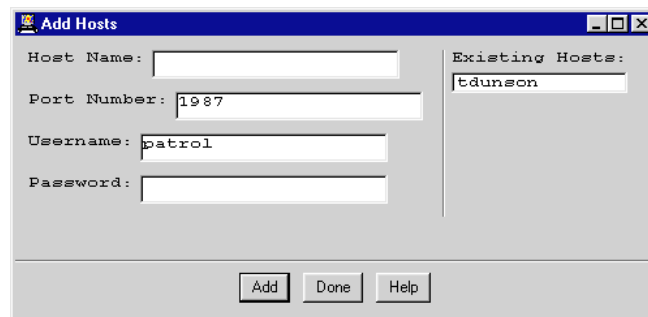
**Step 1** In a PATROL Console, right-click the **SR\_DATASTORE** application class.

A pop-up menu is displayed.

**Step 2** From the pop-up menu, choose **KM Commands => Remote Administration => Add Hosts**.

The Add Hosts Dialog Box is displayed.

**Figure 6-8 Add Hosts Dialog Box**



**Step 3** In the Host Name field, enter the name of the remote computer hosting the data collection components.

**Step 4** In the Port Number field, enter the port number used to connect to the PATROL Agent.

**Step 5** In the Username field, enter the username for the PATROL Agent that is hosting the data collection components.

**Step 6** In the Password field, enter the password for the PATROL Agent on the machine that is hosting the data collection components.

**Step 7** Click **Add**.

The host is displayed in the Existing Hosts list.

**Step 8** Repeat steps 3-7 until you have completed adding hosts.

**Step 9** Click **Done**.



## Editing Remote Hosts

---

**Summary:** This task describes how to edit the port number, user name, and password that are recorded for a remote host in the remote host list.

---

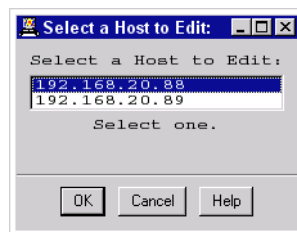
**Step 1** In a PATROL Console, right-click the **SR\_DATASTORE** application class.

A pop-up menu is displayed.

**Step 2** From the pop-up menu, choose **KM Commands => Remote Administration => Edit Hosts**.

The Select a Host to Edit dialog box is displayed.

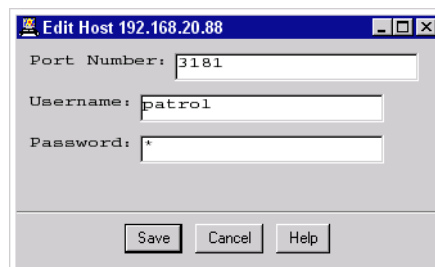
**Figure 6-9 Select a Host to Edit Dialog Box**



**Step 3** Select the host to edit and click **OK**.

The Edit Host dialog box is displayed.

**Figure 6-10 Edit Host Dialog Box**



- Step 4** In the Port Number field of the Edit Host dialog box, enter the port number for the host.
- Step 5** In the Username field of the Edit Host dialog box, enter the username for the host.
- Step 6** In the Password field of the Edit Host dialog box, enter the password for the host.
- Step 7** Click **OK**.

## Deleting Remote Hosts

---

**Summary:** This task describes how to delete a host from the remote host list.

---

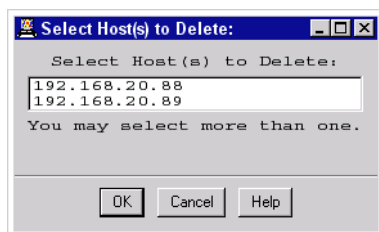
**Step 1** In a PATROL Console, right-click the **SR\_DATASTORE** application class.

A pop-up menu is displayed.

**Step 2** From the pop-up menu, choose **KM Commands => Remote Administration => Delete Hosts**.

The Select Host(s) to Delete dialog box is displayed.

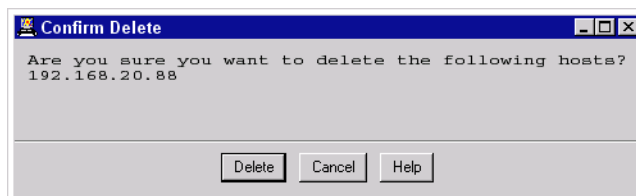
**Figure 6-11 Select Host(s) to Delete Dialog Box**



**Step 3** Select the host or hosts to delete and click **OK**.

The Confirm Delete dialog box is displayed.

**Figure 6-12 Confirm Delete Dialog Box**



**Step 4** In the Confirm Delete dialog box, click **Delete** to delete the remote host from the remote host list. Click **Cancel** if you do not want to delete the remote host.

## Configuring Remote History Retrievers

---

**Summary:** This task describes how to apply history retriever configuration settings to remote hosts. A remote host must be added to the remote host list before you can configure a history retriever that resides on that remote host. For more information, see “Adding Remote Hosts” on page 6-23.

---

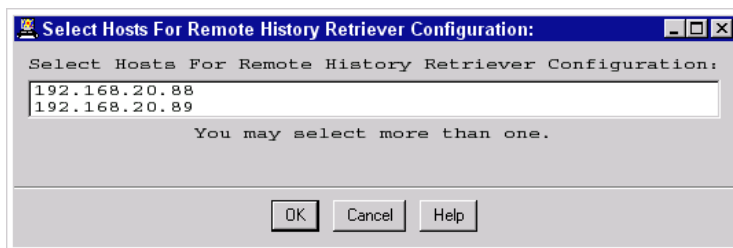
**Step 1** In a PATROL Console, right-click the **SR\_DATASTORE** application class.

A pop-up menu is displayed.

**Step 2** From the pop-up menu, choose **KM Commands => Remote Administration => Config. Remote History Retrvr.**

The Select Hosts for Remote History Retriever Configuration dialog box is displayed.

**Figure 6-13 Select Hosts for Remote History Retriever Configuration Dialog Box**



**Step 3** In the Select Hosts for Remote History Retriever Configuration dialog box, select the remote host in which you will configure the history retriever and click **OK**.

The Remote History Retriever Configuration dialog box is displayed.

**Figure 6-14 Remote History Retriever Configuration Dialog Box**

Remote History Retriever Configuration

Aggregator Host:

Aggregator Port:

Logging Level: ☐ Off  
☐ 1 (Least Detail)  
☐ 2  
☒ 3 (Medium Detail)  
☐ 4  
☐ 5 (Most Detail)

KM Preferences

Automatic Restart: ☐ Off  
☒ On

☒ Preload KM

**Step 4** In the Remote History Retriever Configuration dialog box, provide the following information:

**Table 6-4 Remote History Retriever Configuration Information**

Field	Description
Aggregator Host	Enter the name of the computer hosting the data aggregator.
Aggregator Port	Enter the port number the history retriever uses to connect to the data aggregator.  The default port number is 4568.
Logging Level	Select the level of information detail you want displayed in the log files in the Log dialog box. <ul style="list-style-type: none"><li>• Higher numbers increase the level of detail.</li><li>• Lower numbers decrease the level of detail.</li></ul> By default, Logging Level 3 is pre-selected.  For more information about the Log dialog box, see “Viewing DataStore KM Component Logs” on page 6-35.  For more information about the messages displayed in the Log dialog box at each Logging level, see “Sample Retriever Log Files” on page C-1.

**Table 6-4 Remote History Retriever Configuration Information**

Field	Description
Automatic Restart	Select <b>Off</b> or <b>On</b> . If Automatic Restart is on and the history retriever stops for any reason, the history retriever will automatically restart.
Preload KM	Select this check box to add the SR-DATASTORE KM and the SR_HISTORYRET KM to the preloaded KM list of the PATROL Agent. This allows these KM files to be automatically loaded when the agent is restarted.

**Step 5 Click **Send**.**

The history retriever configuration settings are sent to the agent hosting the remote history retriever.

Changes to the Automatic Restart or Preload KM settings will not cause the history retriever to stop and restart. However, any change to any of the other settings will cause the following:

- If the history retriever is already running and Automatic Restart is on, the history retriever will be stopped and automatically restarted.
- If the history retriever is already running and Automatic Restart is off, the history retriever will be stopped. You must then manually restart the history retriever.
- If the history retriever is not running, it will not be started unless you manually start it or set Automatic Restart to On.

For information about manually starting a history retriever, see “Starting a History Retriever” on page 6-13.

## Configuring Remote Event Retrievers

---

**Summary:** This task describes how to apply event retriever configuration settings to remote hosts. Before an event retriever on the remote host can be configured, the remote host must be added to the remote host list. For more information, see “Adding Remote Hosts” on page 6-23.

---

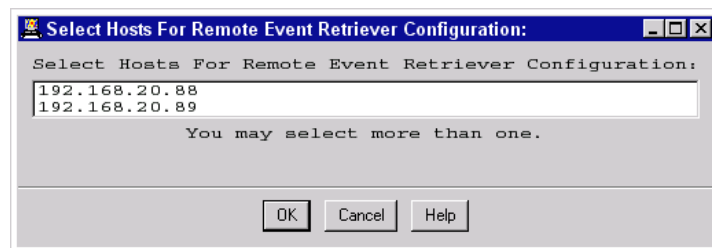
**Step 1** In a PATROL Console, right-click the **SR\_DATASTORE** application class.

A pop-up menu is displayed.

**Step 2** From the pop-up menu, choose **KM Commands => Remote Administration => Config. Remote Event Retrivr.**

The Select Hosts for Remote Event Retriever Configuration dialog box is displayed.

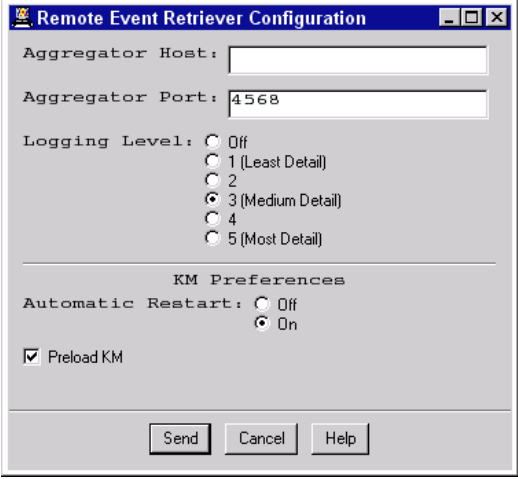
**Figure 6-15 Select Hosts for Remote Event Retriever Configuration Dialog Box**



**Step 3** In the Select Hosts for Remote Event Retriever Configuration dialog box, select the remote host in which you will configure the event retriever and click **OK**.

The Remote Event Retriever Configuration dialog box is displayed.

**Figure 6-16 Remote Event Retriever Configuration Dialog Box**

The image shows a Windows-style dialog box titled "Remote Event Retriever Configuration". It contains two text input fields: "Aggregator Host:" and "Aggregator Port:". The "Aggregator Port:" field contains the text "4568". Below these fields is a "Logging Level:" section with six radio button options: "Off", "1 (Least Detail)", "2", "3 (Medium Detail)" (which is selected), "4", and "5 (Most Detail)". A horizontal line separates this from the "KM Preferences" section, which includes "Automatic Restart:" with "Off" and "On" radio buttons (where "On" is selected), and a checked checkbox for "Preload KM". At the bottom are three buttons: "Send", "Cancel", and "Help".

Remote Event Retriever Configuration

Aggregator Host:

Aggregator Port:

Logging Level: ☐ Off  
☐ 1 (Least Detail)  
☐ 2  
☒ 3 (Medium Detail)  
☐ 4  
☐ 5 (Most Detail)

KM Preferences

Automatic Restart: ☐ Off  
☒ On

☒ Preload KM

**Step 4** In the Remote Event Retriever Configuration dialog box, provide the following information:

**Table 6-5 Remote Event Collection Configuration Information**

Field	Description
Aggregator Host	Enter the name of the computer hosting the data aggregator.
Aggregator Port	Enter the port number the event retriever uses to connect to the data aggregator.  The default port number is 4568.



**Table 6-5 Remote Event Collection Configuration Information**

Field	Description
Logging Level	<p>Select the level of information detail you want displayed in the log files in the Log dialog box.</p> <ul style="list-style-type: none"><li>• Higher numbers increase the level of detail.</li><li>• Lower numbers decrease the level of detail.</li></ul> <p>By default, Logging Level 3 is pre-selected.</p> <p>For more information about the Log dialog box, see “Viewing DataStore KM Component Logs” on page 6-35.</p> <p>For more information about the messages displayed in the Log dialog box at each Logging level, see “Sample Retriever Log Files” on page C-1.</p>
Automatic Restart	<p>Select <b>Off</b> or <b>On</b>. If Automatic Restart is on and the event retriever stops for any reason, the event retriever will automatically restart.</p>
Preload KM	<p>Select this check box to add the SR_DATASTORE KM and the SR-EVENTRET KM to the preloaded KM list of the PATROL Agent. This allows these KM files to be automatically loaded when the agent is restarted.</p>

**Step 5 Click Send.**

The event retriever configuration settings are sent to the agent hosting the remote event retriever.

Changes to the Automatic Restart or Preload KM settings will not cause the event retriever to stop and restart. However, any change to any of the other settings will cause the following:

- If the event retriever is already running and Automatic Restart is on, the event retriever will be stopped and automatically restarted.
- If the event retriever is already running and Automatic Restart is off, the event retriever will be stopped. You must then manually restart the event retriever.

- If the event retriever is not running, it will not be started unless you manually start it or set Automatic Restart to On.

For information about manually starting an event retriever, see “Starting an Event Retriever” on page 6-18.

## Component Logs and Error Condition Messages

In the PATROL Console, you can view lists that record the activities of the DataStore components as well as messages that describe the source of an alarm in the PATROL Console.

This information can help you diagnose and correct problems in your environment. The dialog boxes that are used for these lists and messages are the Log dialog box and the Error Condition dialog box.

- For more information about the Log dialog box, see “Viewing DataStore KM Component Logs” on page 6-35.
- For a detailed explanation of the types of information displayed in the Log dialog box, see “Sample Retriever Log Files” on page C-1.
- For more information about the Error Condition dialog box, see “Error Condition Messages” on page 6-37.

## Viewing DataStore KM Component Logs

---

**Summary:** This task describes how to view DataStore KM component logs with the Log dialog box. For specific information about the history retriever and event retriever messages displayed in the Log dialog box, see “Sample Retriever Log Files” on page C-1.

---

---

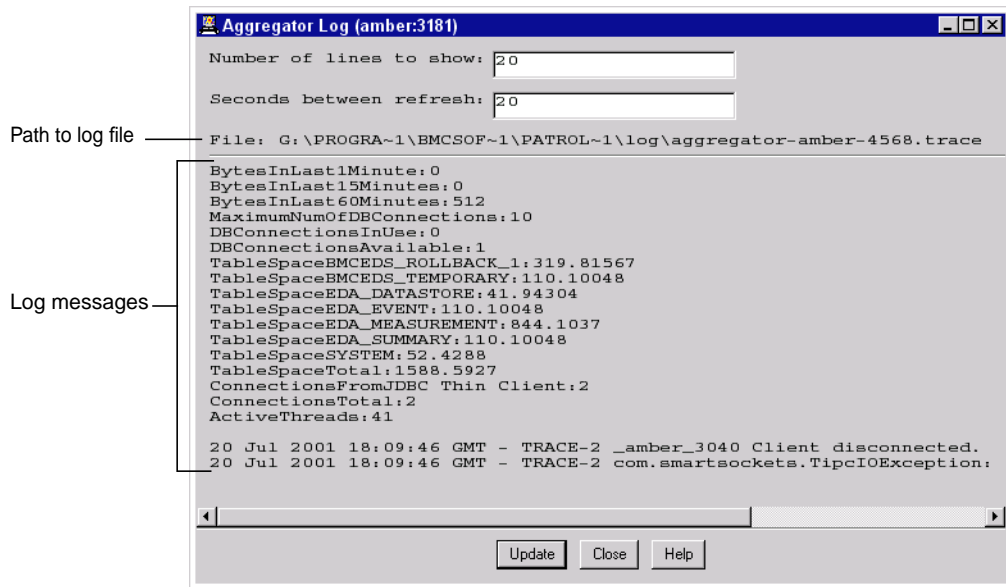
### Note

By default, all retrievers have Log level 3 pre-selected. For information about setting Log levels for a local aggregator, see “Configuring a Local Data Aggregator” on page 6-4. For information about setting Log levels for retrievers, see “Configuring a Local History Retriever” on page 6-10, “Configuring a Local Event Retriever” on page 6-15, “Configuring Remote History Retrievers” on page 6-28, and “Configuring Remote Event Retrievers” on page 6-31.

---

- Step 1** In a PATROL Console, click the **SR\_DATASTORE** application class to expand it.
- Step 2** Right-click the Aggregator, EventRet\_<port>, or HistoryRet\_<port> application instance.
- A pop-up menu is displayed.
- Step 3** From the pop-up menu, choose **KM Commands => Administration => Watch Log**.
- The Log dialog box is displayed.

**Figure 6-17 Log Dialog Box**



- Step 4** (Optional) In the Number of Lines to Show field, edit the number of lines to display from the end of the log file.
- Step 5** (Optional) In the Seconds Between Refresh field, edit the refresh rate of the log file display.
- Step 6** If you have edited the Number of Lines to Show field or the Seconds Between Refresh field, click **Update**.

---

**Tip**

You can also use a regular text editor to view the log file on the agent machine's file system without having to use the PATROL Console. The path to the log file is displayed in the Log dialog box.

---

## Error Condition Messages

If an error condition exists in the SR\_DATASTORE application class or in an aggregator, history retriever, or event retriever that are the components of that application class, the PATROL Console will indicate an alarm state. The Error Condition dialog box will display a message indicating the specific nature of the alarm state. You can use this information to aid in the diagnosis and correction of the alarm state.

Depending on which component you select, the Error Condition dialog box is displayed with several variations, as follows:

- SR Data Collection Error Condition dialog box
- History Retriever Error Condition dialog box
- Event Retriever Error Condition dialog box
- Aggregator Error Condition dialog box

In any of the Error Condition dialog boxes, only a single message will be displayed at a time. A list of the potential error messages available in the Error Condition dialog boxes is in Table 6-6, “Possible Error Condition Messages,” on page 6-38.

**Table 6-6 Possible Error Condition Messages**

Component Dialog Box	Messages
SR Data Collection Error Condition dialog box	None
	<b>Note:</b> This message will be displayed in the event that the component is not alarming
	Stopped: Auto restart is off
	Stopped: Auto restart failed
	Stopped: Manual restart failed
	Service Reporting directory not found!
	Inherited from <history retriever> <event retriever> <aggregator>
	<b>Note:</b> When a history retriever, event retriever, and/or aggregator alarms, an alarm will also be indicated at the SR_DATASTORE application class level. This message will indicate which component within the SR_DATASTORE application class caused the alarm.
History Retriever Error Condition dialog box	None
	<b>Note:</b> This message will be displayed in the event that the component is not alarming.
	Stopped: Auto restart is off
	Stopped: Auto restart failed
	Stopped: Manual restart failed
	Startup error: Couldn't connect to Aggregator, check Host & Port
	The History Retriever <version> is newer than the Aggregator <version>
	The History Retriever <version> is older than the Aggregator <version>

**Table 6-6 Possible Error Condition Messages**

Event Retriever Error Condition dialog box	None
	<b>Note:</b> This message will be displayed in the event that the component is not alarming
	Stopped: Auto restart is off
	Stopped: Auto restart failed
	Stopped: Manual restart failed
	Startup error: Couldn't connect to Aggregator, check Host & Port
	Startup error: Disconnected from PATROL Agent, check Agent User & Password
	The Event Retriever <version> is newer than the Aggregator <version>
	The Event Retriever <version> is older than the Aggregator <version>
Aggregator Error Condition dialog box	None
	<b>Note:</b> This message will be displayed in the event that the component is not alarming.
	Stopped: Auto restart is off
	Stopped: Auto restart failed
	Stopped: Manual restart failed
	Couldn't connect to the database
	The database (version) is not the correct version for this Aggregator (version)
	Failed to terminate Aggregator

## Viewing Application Class Error Condition Messages

---

**Summary:** This task describes how to view error condition messages available in a PATROL Console at the SR\_DATASTORE application class level. These messages can help to diagnose and correct a problem when the SR\_DATASTORE application class alarms. For more information, see “Error Condition Messages” on page 6-37.

---

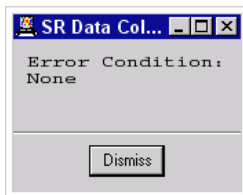
**Step 1** In a PATROL Console, right-click the SR\_DATASTORE application class.

A pop-up menu is displayed.

**Step 2** From the pop-up menu, choose **KM Commands => Show Error Condition**.

The SR Data Collection Error Condition dialog box is displayed.

**Figure 6-18 SR Data Collection Error Condition Dialog Box**



**Step 3** To close the SR Data Collection Error Condition dialog box, click **Dismiss**.



## Viewing Component Level Error Condition Messages

---

**Summary:** This task describes how to view error condition messages available in a PATROL Console for a history retriever, event retriever, or aggregator. These messages can help to diagnose and correct a problem when the SR\_DATASTORE application class alarms. For more information, see “Error Condition Messages” on page 6-37.

---

**Step 1** In a PATROL Console, click the SR\_DATASTORE application class to expand it.

**Step 2** Right-click a history retriever, event retriever, or aggregator.

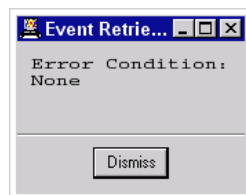
A pop-up menu is displayed.

**Step 3** From the pop-up menu, choose **KM Commands => Administration => Show Error Condition**.

The Error Condition dialog box is displayed as follows:

- If you displayed the Error Condition dialog box for a history retriever, the dialog box is titled History Retriever Error Condition.
- If you displayed the Error Condition dialog box for an event retriever, the dialog box is titled Event Retriever Error Condition.
- If you displayed the Error Condition dialog box for an aggregator, the dialog box is titled Aggregator Error Condition.

**Figure 6-19 Event Retriever Error Condition Dialog Box**



**Step 4** To close the Error Condition dialog box, click **Dismiss**.



---

# Advanced Data Retrieval Tools

This chapter covers how to collect data using advanced data retrieval tools, such as manual retrieval and open data retrievers.

Manual Retrieval Settings. . . . .	7-2
Using Manual Retrieval to Collect Data . . . . .	7-3
Using Manual Retrieval to Stop the Collection of Data . . . . .	7-3
Clearing a Manual Retrieval . . . . .	7-4
Listing and Clearing Manual Retrieval . . . . .	7-5
The Open Data Retriever and CSV Data . . . . .	7-7
Collecting CSV Data with the dump_hist Utility . . . . .	7-8
Summarizing CSV Data with AggCLI . . . . .	7-11

# Manual Retrieval Settings

Manual retrieval allows you start or stop the retrieval of parameter data regardless of the settings in a history filter. Manual retrieval settings override any overlapping history filter setting. This allows you to be very specific about what data is or is not collected.

The types of manual retrieval are:

- **Start**—collects parameter data for an item in the namespace regardless of any history filter settings. For more information on starting manual retrieval, see “Using Manual Retrieval to Collect Data” on page 7-3.
- **Stop**—no parameter data is collected for the item in the namespace, even if a history filter setting has that item selected. For more information on using manual retrieval to stop data collection, see “Using Manual Retrieval to Stop the Collection of Data” on page 7-3.

Manual retrieval settings remain in effect until they are cleared. Whether a manual retrieval is used to start data collection or to stop data collection, you must clear the manual retrieval in order to turn it off. Once manual retrieval settings are cleared, any affected history retrievers resume retrieval based on history filter settings. For more information on clearing manual retrieval settings, see “Clearing a Manual Retrieval” on page 7-4 or “Listing and Clearing Manual Retrieval” on page 7-5.

---

## Note

If you select a node, application class, or application instance to set a manual retrieval that starts or stops data collection, all parameters in the namespace hierarchy under the selected node, application class, or application instance are affected.

---

## Using Manual Retrieval to Collect Data

---

**Summary:** This task describes how to start the manual retrieval of parameter data.

---

- Step 1** In the DataStore Console, click the **Data** tab.
- Step 2** Right-click a collector, application class, application instance, or parameter.
- Step 3** From the pop-up menu, choose **Manual Retrieval => Start**.

## Using Manual Retrieval to Stop the Collection of Data

---

**Summary:** This task describes how to stop manually collecting parameter data.

---

- Step 1** In the DataStore Console, click the **Data** tab.
- Step 2** Right-click a collector, application class, application instance, or parameter.
- Step 3** From the pop-up menu, choose **Manual Retrieval => Stop**.

## Clearing a Manual Retrieval

---

**Summary:** Whether a manual retrieval setting started the collection of data or stopped the collection of data, you can use this task to clear the manual retrieval setting. Once the manual retrieval setting is cleared, any affected history retrievers will resume data retrieval based on existing history filters. For an alternative method of clearing manual retrieval that also provides a list of all occurrences of manual retrieval in your environment, see “Listing and Clearing Manual Retrieval” on page 7-5.

---

- Step 1** In the DataStore Console, click the **Data** tab.
- Step 2** Right-click the collector, application class, application instance, or parameter that is the subject of a manual retrieval setting.
- Step 3** From the pop-up menu, choose **Manual Retrieval => Clear**.

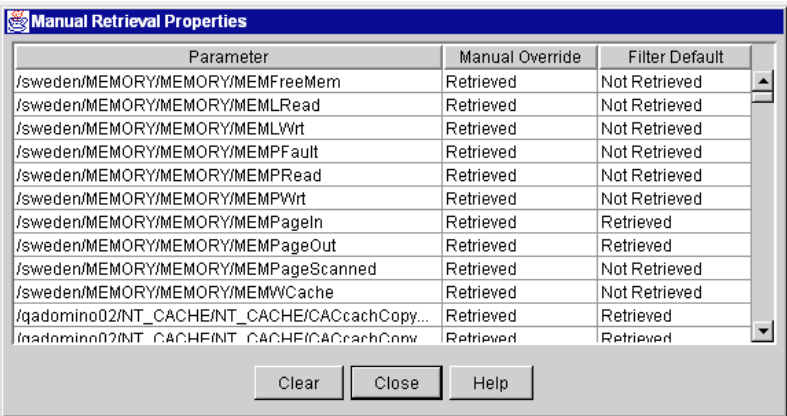
# Listing and Clearing Manual Retrieval

**Summary:** In a single list, the Manual Retrieval Properties dialog box displays every occurrence of manual retrieval in your environment. As a convenience, this dialog box provides an alternative method for clearing existing occurrences of manual retrieval.

**Step 1** From the Filter menu in the DataStore Console, click **Manual Retrieval List**.

The Manual Retrieval Properties dialog box is displayed.

**Figure 7-1 Manual Retrieval Properties Dialog Box**



Parameter	Manual Override	Filter Default
/sweden/MEMORY/MEMORY/MEMFreeMem	Retrieved	Not Retrieved
/sweden/MEMORY/MEMORY/MEMLRead	Retrieved	Not Retrieved
/sweden/MEMORY/MEMORY/MEMLWrt	Retrieved	Not Retrieved
/sweden/MEMORY/MEMORY/MEMPFault	Retrieved	Not Retrieved
/sweden/MEMORY/MEMORY/MEMPRead	Retrieved	Not Retrieved
/sweden/MEMORY/MEMORY/MEMPWrt	Retrieved	Not Retrieved
/sweden/MEMORY/MEMORY/MEMPageIn	Retrieved	Retrieved
/sweden/MEMORY/MEMORY/MEMPageOut	Retrieved	Retrieved
/sweden/MEMORY/MEMORY/MEMPageScanned	Retrieved	Not Retrieved
/sweden/MEMORY/MEMORY/MEMWCache	Retrieved	Not Retrieved
/qadomino02/NT_CACHE/NT_CACHE/CACcachCopy...	Retrieved	Retrieved
/qadomino02/NT_CACHE/NT_CACHE/CACcachConv...	Retrieved	Retrieved

Clear Close Help

In the Manual Retrieval Properties dialog box,

- the Parameter column lists the namespace that identifies that manual retrieval setting
- the Manual Override column lists whether the parameter has been Retrieved (indicating a start setting) or Not Retrieved (indicating a stop setting)
- the Filter Default column tells whether the parameter would have been retrieved based solely on the filters already in place

**Step 2** (Optional) To clear a manual retrieval setting, select an occurrence of manual retrieval and click **Clear**.

**Step 3** Click **Close**.



# The Open Data Retriever and CSV Data

The DataStore allows you to collect comma-separated value (CSV) data. With the open data retriever, you can load `dump_hist` data as CSV data into the DataStore. The open data retriever is run from the command line, where you specify the file you want to import into the DataStore. Before you can run the open data retriever, you can run the `dump_hist` utility using allowed options.

The open data retriever can be found in the `%PATROL_HOME%\sr\bin` directory.

The syntax for the open data retriever is:

```
csvcollector      [-a aggregator]
                  [-p aggregator port]
                  [-f file]
                  [-tz timezone]
```

Table 7-1 lists and defines the options recognized by the open data retriever.

**Table 7-1     Open Data Retriever Options**

Option	Definition
-a	This option specifies the data aggregator that is used to import the <code>dump_hist</code> data into the DataStore.
-p	The value of this option should be a port number to which the specified data aggregator is listening. The default port is 4568
-f	This option specifies the <code>.csv</code> file to import into the DataStore.
-tz	This option specifies the time zone difference between the <code>dump_hist</code> data and the current time zone you are running the open data retriever in.

# Collecting CSV Data with the dump\_hist Utility

Use the `dump_hist` command line utility to save parameter history data from databases by PATROL Agents to ASCII text files as comma-separated value (CSV) data. History data is printed to standard output in test form. The utility exits with one of the following values:

- 0 All matching parameters were dumped successfully
- 1 `dump_hist` was aborted because of invalid options

The syntax for the `dump_hist` utility is

```
dump_hist      [-p port]
               [-host hostname]
               [-class regexp]
               [-inst regexp]
               [-form OPTIONS format]
               [-param regexp]
               [-s mmddhhmm [yyyy] ]
               [-e mmddhhmm [yyyy] ]
```

## dump\_hist Options

Table 7-2 lists and defines the options recognized by the `dump_hist` utility that are used by the open data retriever.

**Table 7-2 Options recognized by dump\_hist Utility (Part 1 of 2)**

Option	Definition
-p	This option specifies which PATROL Agent's history database is used. Combined with the -host option, -id specifies a unique PATROL Agent. The value of this option should be a port number to which the specified PATROL Agent is listening. The default value is 3181.
-host	This option specifies which PATROL Agent's history database is used. By default, the name of the host on which <code>dump_hist</code> is started is used. This option must be combined with the -id option.

**Table 7-2 Options recognized by dump\_hist Utility (Part 2 of 2)**

Option	Definition
-class	This option specifies which application classes to dump. You can use -class to filter out parameters whose application classes do not match the given regular expression.
-inst	This option specifies which application instances to dump. You can use the -inst to filter out parameters whose application instances do not match the given regular expression.
-format	See “dump_hist Format Options” on page 7-9.
-param	This option specifies which parameters to dump. You can use -param to filter out parameters whose names do match the given regular expression.
-s -e	These options specify the time span to dump. Only parameter points that are within the specified span are dumped.

If more than one of these options are specified, they are interpreted as “And” conditions. For example, imagine that you specify both `-class` and `-param`. For the parameter to be dumped, its application class must match the regular expression given by the `-class` option, and its application instance must match the regular expression given by the `-inst` option.

## dump\_hist Format Options

The `-format` option controls the layout of the ASCII text files created by the `dump_hist` command. This option can be used to decide what information should appear in the file. Table 7-3 lists and defines what `-format` options are recognized by the `dump_hist` utility and recognized by the open data retriever.

**Table 7-3 Options for -format (Part 1 of 2)**

Option	Definition
%H	host name
%A	application name

**Table 7-3 Options for -format (Part 2 of 2)**

Option	Definition
%I	instance name
%P	parameter name
%y	year (yyyy)
%m	month (mm)
%d	day (dd)
%h	hour
%M	minutes (M)
%s	seconds (ss)
%v	parameter value stored in param.hst file

The syntax of `-format` is to present the options in Table 7-3 between quotes and use characters to separate those values. For example, the following command would produce a `.dat` file in the `$PATROL_HOME/remote` directory, and each line of the file would use the same character separators:

```
dump_hist -format ",,%H,%A,%I,%P,%Y-%m-%d %h:%M:%s,%v"
```

---

**Note**

---

The format of the csv file created by the `dump_hist` command is fixed in nature; it is not flexible and it cannot be modified.

---

For more information on using the `dump_hist` utility, refer to the *"PATROL Agent Reference Guide"*.

# Summarizing CSV Data with AggCLI

**Summary:** The information in this task describes how to use the Aggregator Command Line utility (AggCLI) to summarize comma-separated value (CSV) data that has been inserted by the Open Data Retriever.

Table 7-4 shows the AggCLI directory location and startup command for both Windows and Unix environments.

**Table 7-4** Directory and Start Command Information for AggCLI

Platform	Directory	Startup Command
Windows	%PATROL_HOME %lsr\bin	aggcli.bat -a <aggregator hostname> -p <aggregator port number>
Unix	\$PATROL_HOME/< target>/sr/bin	aggcli -a <aggregator hostname> -p <aggregator port number>

In the example in Table 7-4, <aggregator hostname> is the name of the host where the data is located and <aggregator port number> is the host port number.

**Note**  
The default aggregator port number is 4568.

» When the utility starts and displays the command prompt (>), enter the following command at the prompt to specify the data that you want to summarize:

**summ csv raw <root\_namespace> <starting\_date “YYYY-MM-DD  
HH:MM”>**

**Note**  
The angle brackets (< >) indicate what belongs in each position of the command. The date must be enclosed in double quotes (“ ”).

The utility runs summaries for the specified namespace and all namespaces below it. Each summary starts at the date you enter and includes the date that the last standard summary was run.

For example, if you want to summarize daily the entire namespace tree on the machine called "jack" starting from January 31, 2001, at midnight, up until the last time summaries were run, you would enter the following command:

```
summ csv raw/jack "2001-01-31 00:00"
```

If you do not enter the HH:MM parameter, the utility assumes the start time to be 00:00.

# Maintaining the DataStore

This chapter provides information about the various processes used to maintain the DataStore. These processes include DataStore backup and the verification of DataStore files.

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# Backup and Recovery of the DataStore

The backup and recovery of the DataStore is accomplished using backup and recovery scripts provided by BMC Software. The scripts and their locations are listed in Table 8-1.

**Table 8-1 Backup and Recovery Scripts**

Item	Windows	Unix
Backup Scripts	backup.bat	backup.sh
Restore Scripts	restore.bat	restore.sh
Directory	Oracle\bin (in the directory where SR is installed)	ora815/bin (in the directory where SR is installed)

---

## Note

The backup and recovery scripts provided by BMC Software are the only supported manners of backing up and restoring the DataStore.

---

The backup script copies all database files from the original DataStore directory to a backup directory that you specify. The recovery script copies the database files back into the original DataStore directory. The backup and recovery scripts copy the database files. The backup and recovery scripts do **not** archive the database files.

First, these scripts stop the DataStore. Next, they copy the appropriate files. Finally, they restart the DataStore. Depending on the size of the DataStore, the amount of time required to perform the backup and recovery will vary. The amount of time needed for backup or recovery will increase as the amount of data in the DataStore increases.

---

## Warning

Before using the backup and recovery scripts, you must stop all data aggregators connected to the DataStore. The backup and recovery scripts will not stop the DataStore if the data aggregators are running.

---



# Backup and Recovery Recommendations

BMC Software strongly recommends that you implement the following practices regarding the backup and recovery of the DataStore:

- Daily backups of the DataStore should be performed. If daily backups are not performed, backups should at least be performed weekly.
- Backups of the DataStore should be onto some type of media. You should keep several copies of this media on hand in case one of them fails or is corrupt.
- If you intend to backup the DataStore to disk, ensure that you either backup to another disk drive or have adequate disk space on the DataStore drive.
- If the DataStore seems to be in a corrupt state, try to troubleshoot the problem before using the recovery scripts to restore the DataStore. If the DataStore backup is not available for recovery, the DataStore must be reinstalled. The reinstallation will result in the loss of all data that was previously collected and stored in the DataStore.
- Periodically verify that there is adequate disk space for the DataStore on the DataStore host computer.
- Ensure that you are not using a corrupt database. Run the database verification utility before you backup or restore the DataStore.

## Backing up the DataStore

---

**Summary:** This task describes how to use the backup.bat and backup.sh scripts to backup theDataStore.

---

---

### Warning

---

You must first stop all of the data aggregators connected to the DataStore. If any data aggregators are running, the backup and recovery scripts will not run.

---

### To Backup the DataStore

» For Windows NT, from the directory where SR is installed, enter:

```
backup.bat [backup directory]
```

or

» For Unix, from the directory where SR is installed, enter

```
backup.sh [backup directory]
```

---

### Warning

---

If the NT\_Services KM is running, it will restart the Oracle service on NT without being prompted. The NT\_Services KM will automatically detect that the oraclebmceds service is down and will restart it without help. This can lead to an invalid backup or restoration of a database. To prevent this situation, select **NT-SERVICE** from the PATROL Console. Right-click **oraclebmceds**, select **KM Commands**, and set **Auto Restart** to **Off**. Once backup or restore is complete, you can set **Auto Restart** to **On**.

---

## Restoring the DataStore

---

**Summary:** This task describes how to use the `recovery.bat` and `recovery.sh` scripts to restore the DataStore.

---

---

### Warning

---

Ensure that data aggregators connected to the DataStore are stopped. If you do not stop the data aggregators, the backup and recovery scripts will not run because they will be unable to stop the DataStore.

---

### To Restore the DataStore

» For Windows NT, from the Oracle directory, enter:

```
restore.bat [backup directory]
```

or

» For Unix, from the Oracle directory, enter:

```
restore.sh [backup directory]
```

The files contained in the backup directory are copied to the original directory. The DataStore starts recording data from the data aggregators at the next scheduled interval.

---

### Note

---

Parameter data already collected from the agents may still remain in the agents. DataStore will attempt to recover any remaining parameter data.

---

# Verification of the DataStore

The database verification script measures the integrity of database files. Before restoring the backup copy of the DataStore, use the database verification script to verify that the backup copy of the DataStore is valid. You can also use the database verification script as a diagnostic tool for data corruption problems.

The database verification script can be run from the command line. It is located in the %PATROL\_HOME\Oracle\bin directory (Windows) and the \$PATROL\_HOME/Ora815/bin (Unix). It requires no arguments.

## Running the Verification Script

---

**Summary:** This task describes how to run the verification script for the Windows NT and Unix operating system.

---

»» For Windows NT, enter

```
sr-verify.bat
```

or

»» For Unix, from the Unix directory enter

```
sr-verify.sh
```

The output you receive from the database verification script lists the number of pages examined and processed. The output also indicates how many of these pages failed or were corrupt.

# Report Server and DataStore Time Zone Synchronization

In DataStore, data summarization uses the time zone specified in the Time Zones dialog box. To correctly report the summarized data, the Report Server must be correctly synchronized with DataStore. For more information about the Time Zones dialog box, see “Selecting a Time Zone” on page 4-19.

BMC Software provides several scripts that will help you coordinate DataStore settings and the Report Server settings. These scripts can be run from the command line. Table 8-2 lists the available scripts and provides a brief description of their purpose.

**Table 8-2 Report Server Data Summarization Scripts**

Script	Purpose
tz_util testc	Verify that you are able to connect to the DataStore from the Report Server.
tz_util qdben	View the time zone(s) currently being used for data summarization in DataStore.
tz_util sdcfg	Configure the Report Server to create reports using the default time zone in DataStore.  This script runs automatically every day at 02:00 local time. This automatically configures the Report Server to create reports using the default time zone in the DataStore.
tz_util sscfg	Configure the Report Server to create reports using an DataStore time zone id.
tz_util qdbal	View a list of all time zones supported byDataStore.
tz_util soffs	Record the GMT offset of the Report Server.
tz_util qcfcg	Display the current Report Server settings for local time zone offset and report time zone.

These scripts can be located in the [installation directory]\bmcreports\install directory.

# Verifying the Connection to the DataStore

---

*Summary:* This task verifies that you can connect to the DataStore.

---

» From [install directory]\bmcreports\install, enter:

```
tz_util testc
```

## Example Output

```
Connection to DataStore succeeded.
```

# Viewing Time Zones Enabled for Data Summarization

---

*Summary:* This command lists all time zones which are enabled in DataStore for data summarization.

---

» From [install directory]\bmcreports\install, enter:

```
tz_util qdben
```

## Example Output

```
Time zones for which data summarization is enabled:
```

TIMEZONEID	GMTOFFSET	NAME
0	0	GMT

## Applying the Data Summarization Time Zone

---

**Summary:** This command extracts the active time zone setting for data summarization from DataStore and applies it to the Report Server.

---

» From [install directory]\bmcreports\install, enter:

```
tz_util sdcfg
```

## Generating Reports with the DataStore Time Zone ID

---

**Summary:** This command allows you to configure the Report Server to generate reports using the data summarization time zone in DataStore.

---

» From [install directory]\bmcreports\install, enter:

```
tz_util sscfg <timezone id>
```

Where <timezone id> is the numerical id for a timezone.

# Listing Time Zones Supported by DataStore

---

**Summary:** This command displays a list of all data summarization time zones supported by DataStore.

---

» From [install directory]\bmcreports\install, enter:

```
tz_util qdbal
```

## Example Output

All time zones supported by the database:

TIMEZONEID	GMTOFFSET	NAME
0	0	GMT
1	-5	EST
2	-4	EDT
3	-6	CST
4	-5	CDT
5	-7	MST

# Recording the GMT Offset of the Report Server

---

**Summary:** This command determines the offset between the local computer and GMT. It also sets the tz\_offset.cfg file to the correct offset.

---

» From [install directory]\bmcreports\install, enter

```
tz_util soffs
```

---

### Note

This command automatically runs when Service Reporting is installed. In addition, this command should be executed to adjust for seasonal changes in and out of daylight savings time.

---



## Displaying Report Server Settings

---

**Summary:** This command allows you to review the current Report Server settings for time zone configuration.

---

» From [install directory]\bmcreports\install, enter

```
tz_util qcfg
```

### Example Output

This node's current Service Reporting time zone configuration:

```
LocalOffset      = -5
ZoneID           = 0
ZoneOffset       = 0
ZoneName         = GMT
ZoneFirstWeekDay = 1
```



---

# Predefined History Filters

This appendix lists the predefined history filters that were installed with DataStore. For more information on creating and using history filters, see “Configuring Filters” on page 3-1.

Excluding the R3 and SR history filter groups, the default history filters work with the Solution Reports that are a part of Service Reporting. For more information on using Solution Reports, see the “*Reporting User Guide*”.

**Table A-1 Predefined History Filter Groups and History Filters (Part 1 of 8)**

Filter Type	Included History Filters
FilterGroup: NT	/*/NT_CACHE/*/CACcachCopyReadHitsPercent
	/*/NT_CPU/*/CPUprcrProcessorTimePercent
	/*/NT_LOGICAL_DISKS/*/LDldDiskQueueLength
	/*/NT_LOGICAL_DISKS/*/LDldDiskTimePercent
	/*/NT_MEMORY/*/MEMmemAvailableBytes
	/*/NT_MEMORY/*/MEMmemCacheFaultsPerSec
	/*/NT_MEMORY/*/MEMmemPageFaultsPerSec
	/*/NT_MEMORY/*/MEMmemPagesInputPerSec
	/*/NT_MEMORY/*/MEMmemPagesPerSec
	/*/NT_SERVICES/DHCP/ServiceStatus
	/*/NT_SERVICES/EventLog/ServiceStatus
	/*/NT_SERVICES/IISADMIN/ServiceStatus
	/*/NT_SERVICES/LanmanServer/ServiceStatus
	/*/NT_SERVICES/LanmanWorkstation/ServiceStatus
	/*/NT_SERVICES/LicenseService/ServiceStatus
	/*/NT_SERVICES/MSExchangeCCMC/ServiceStatus
	/*/NT_SYSTEM/*/SYSsysProcessorQueueLength
	/*/NT_SYSTEM/*/SYSsysSystemUpTime
FilterGroup: Exchange	/*/MSEXCH_MTA/*/WorkQueueSize
	/*/MSEXCH_Performance/*/AvgMsgDelivery
	/*/MSEXCH_Server/*/PrivateFolders
	/*/MSEXCH_Server/*/PublicFolders
	/*/MSEXCH_Server/*/ServerMemory
	/*/MSEXCH_Server/*/ServerMsgSize
	/*/MSEXCH_Server/*/ServerStatus
	/*/MSEXCH_Server/*/ActiveConnections
	/*/MSEXCH_Server/*/ServerMessages
	/*/MSEXCH_Server/*/ServerCpuPct

**Table A-1    Predefined History Filter Groups and History Filters (Part 2 of 8)**

<b>Filter Type</b>	<b>Included History Filters</b>
<i>FilterGroup: Exchange (cont.)</i>	/*/MSEXCH_Server/*/NonDeliveryRpts
	/*/MSEXCH_AD_Connection/*/FailedAttempts
	/*/MSEXCH_AD_Replication/*/AccessDenials
	/*/MSEXCH_AD_Replication/*/ReplUpdateRate
	/*/MSEXCH_AD_Replication/*/ReplSynchsPending
	/*/MSEXCH_Client/*/LastNMsgTime
	/*/MSEXCH_Cluster_Resources/*/State
	/*/MSEXCH_DataConf_Server/*/FailedJoinPct
	/*/MSEXCH_DB_Private/*/DbFileSize
	/*/MSEXCH_DB_Public/*/DbFileSize
	/*/MSEXCH_DB_Public/*/ReplRecvQueueSize
	/*/MSEXCH_DB_Public/*/ReplMsgSendRate
	/*/MSEXCH_DB_Public/*/ReplMsgRecvRate
	/*/MSEXCH_GroupWise_Connector/*/InQueueLen
	/*/MSEXCH_IM_Server/*/Users
	/*/MSEXCH_Lotus_Connector/*/CcMailMsgsPerHour
	/*/MSEXCH_MsMail_Connector/*/RecvKbPerHour
	/*/MSEXCH_MSMQ_Connector/*/BytesIn
	/*/MSEXCH_Queues/*/MsgSize
	/*/MSEXCH_Remote_Server/*/LastNMsgTime
	/*/MSEXCH_Web_Connector/*/MessageBodies
	/*/MSEXCH_Lotus_Notes_Connector/*/MsgBytesRecv
FilterGroup: Oracle	/*/ORACLE_AVAILABILITY/*/InstanceStatus
	/*/ORACLE_AVAILABILITY/*/ExtentsLeft
	/*/ORACLE_AVAILABILITY/*/FreeSpace

**Table A-1 Predefined History Filter Groups and History Filters (Part 3 of 8)**

Filter Type	Included History Filters
<i>FilterGroup: Oracle (cont.)</i>	/*/ORACLE_AVAILABILITY/*/FreeSpaceDeficit
	/*/ORACLE_AVAILABILITY/*/LockConflicts
	/*/ORACLE_AVAILABILITY/*/RSExtentsLeft
	/*/ORACLE_AVAILABILITY/*/RSSpaceLeft
	/*/ORACLE_AVAILABILITY/*/SystemTSLeft
	/*/ORACLE_CAPACITY/*/BGDumpLeft
	/*/ORACLE_CAPACITY/*/CursorsLeft
	/*/ORACLE_CAPACITY/*/LocksFree
	/*/ORACLE_CAPACITY/*/ProcsLeft
	/*/ORACLE_CAPACITY/*/SessionsLeft
	/*/ORACLE_CAPACITY/*/TransLeft
	/*/ORACLE_CAPACITY/*/UserDumpLeft
	/*/ORACLE_LOG/*/RedoRate
	/*/ORACLE_PERFORMANCE/*/DiskSortRate
	/*/ORACLE_PERFORMANCE/*/LockWaitRatio
	/*/ORACLE_PERFORMANCE/*/ResponseExecTime
	/*/ORACLE_PERFORMANCE/*/TransRate
	/*/ORACLE_SGA/*/BuffHitRatio
	/*/ORACLE_SGA/*/DictHitRatio
	/*/ORACLE_SGA/*/LatchGetRatio
	/*/ORACLE_SGA/*/LibGetHitRatio
	/*/ORACLE_USERS/*/Users
FilterGroup: Unix	/*/CPU/*/CPULoad
	/*/CPU/*/CPUCpuUtil
	/*/CPU/*/CPUUserTime
	/*/CPU/*/CPUSysTime
	/*/DISK/*/DSKPercentBusy
	/*/DISK/*/DSKRead
	/*/DISK/*/DSKWrite

**Table A-1 Predefined History Filter Groups and History Filters (Part 4 of 8)**

Filter Type	Included History Filters
<i>FilterGroup: Unix (cont.)</i>	/*/FILESYSTEM/*/FSAvailableSpace
	/*/FILESYSTEM/*/FSCapacity
	/*/FILESYSTEM/*/FSUsedSpace
	/*/MEMORY/*/MEMFreeMem
	/*/MEMORY/*/MEMPageIn
	/*/MEMORY/*/MEMPageOut
	/*/NETWORK/*/NETCollisionPrc
	/*/NETWORK/*/NETInErrPrc
	/*/NETWORK/*/NETOutErrPrc
	/*/NETWORK/*/NETPacketsIn
	/*/NETWORK/*/NETPacketsOut
	/*/NFS/*/NFSCRead
	/*/NFS/*/NFSCWrite
	/*/NFS/*/NFSSRead
	/*/NFS/*/NFSSWrite
	/*/SWAP/*/SWPTotSwapFreeSpace
	/*/SWAP/*/SWPTotSwapSize
	/*/SWAP/*/SWPTotSwapUsedPercent
	/*/USERS/*/USRNoSession
	/*/USERS/*/USRNoUser
FilterGroup: SR	/*/SR_AGGREGATOR/*//*
	/*/SR_HISTORYRET/*//*
	/*/SR_EVENTRET/*//*
FilterGroup: R3	/*/BW_QUERY_MON/*/BWQueryExecutions
	/*/BW_QUERY_MON/*/BWQueryRespTime
	/*/R3_LOCK_MONITOR/*/R3NumberLocks
	/*/R3_NT_CPU/*/R3CpuUser
	/*/R3_NT_CPU/*/R3CpuUtil
	/*/R3_NT_MEMORY/*/R3MemPctUsed

**Table A-1    Predefined History Filter Groups and History Filters (Part 5 of 8)**

Filter Type	Included History Filters
<i>FilterGroup: R3 (cont.)</i>	/*R3_NT_SWAP/*R3SwapFree
	/*R3_NT_SWAP/*R3SwapFreePct
	/*R3_PERF_BUF_CUA/*BufferQuality
	/*R3_PERF_BUF_CUA/*StorageUsed
	/*R3_PERF_BUF_FIELD_CATAL/*BufferQuality
	/*R3_PERF_BUF_FIELD_CATAL/*StorageUsed
	/*R3_PERF_BUF_GENERIC_KEY/*BufferQuality
	/*R3_PERF_BUF_GENERIC_KEY/*StorageUsed
	/*R3_PERF_BUF_INITIAL_REC/*BufferQuality
	/*R3_PERF_BUF_INITIAL_REC/*StorageUsed
	/*R3_PERF_BUF_PROGRAM/*BufferQuality
	/*R3_PERF_BUF_PROGRAM/*StorageUsed
	/*R3_PERF_BUF_SCREEN/*BufferQuality
	/*R3_PERF_BUF_SCREEN/*StorageUsed
	/*R3_PERF_BUF_SHORTNAMETAB/*BufferQuality
	/*R3_PERF_BUF_SHORTNAMETAB/*StorageUsed
	/*R3_PERF_BUF_SINGLE_KEY/*BufferQuality
	/*R3_PERF_BUF_SINGLE_KEY/*StorageUsed
	/*R3_PERF_BUF_TABLE_DESCR/*BufferQuality
	/*R3_PERF_BUF_TABLE_DESCR/*StorageUsed
	/*R3_PERF_PAGING_FILE/*BufferUtilization
	/*R3_PERF_ROLL_FILE/*BufferUtilization
	/*R3_PERF_WP_DIALOG/*AverageRespTime
	/*R3_PERF_WP_DIALOG/*AverageWaitTime
	/*R3_PERF_WP_DIALOG/*EventFrequency
	/*R3_PERF_WP_JOBS/*AverageRespTime
	/*R3_PERF_WP_JOBS/*AverageWaitTime
	/*R3_PERF_WP_JOBS/*EventFrequency
	/*R3_PERF_WP_SPOOL/*AverageRespTime



**Table A-1    Predefined History Filter Groups and History Filters (Part 6 of 8)**

<b>Filter Type</b>	<b>Included History Filters</b>
<i>FilterGroup: R3 (cont.)</i>	/*R3_PERF_WP_SPOOL*/AverageWaitTime
	/*R3_PERF_WP_SPOOL*/EventFrequency
	/*R3_PERF_WP_UPDATE*/AverageRespTime
	/*R3_PERF_WP_UPDATE*/AverageWaitTime
	/*R3_PERF_WP_UPDATE*/EventFrequency
	/*R3_PRINTER*/QueueLength
	/*R3_PROBE*/R3ProbeAvailability
	/*R3_PROBE*/R3ProbeConnectTime
	/*R3_PROBE*/R3ProbeExecTime
	/*R3_PROBE*/R3ProbePercentAvailable
	/*R3_PROBE*/R3ProbeTotalResponseTime
	/*R3_PROBE_MON*/R3ProbeAvailability
	/*R3_PROBE_MON*/R3ProbeConnectTime
	/*R3_PROBE_MON*/R3ProbeExecTime
	/*R3_PROBE_MON*/R3ProbePercentAvailable
	/*R3_PROBE_MON*/R3ProbeTotalResponseTime
	/*R3_SAPMEMORY*/R3ExtMemPctUsed
	/*R3_SAPMEMORY*/R3ExtMemProc
	/*R3_SAPMEMORY*/R3ExtMemUsage
	/*R3_SAPMEMORY*/R3HeapMemUsage
	/*R3_SAPMEMORY*/R3PagePctUsed
	/*R3_SAPMEMORY*/R3PageUsage
	/*R3_SAPMEMORY*/R3PgWpLocal
	/*R3_SAPMEMORY*/R3PrivWp
	/*R3_SAPMEMORY*/R3RollPctUsed
	/*R3_SAPMEMORY*/R3RollUsage
	/*R3_SVC*/R3WPStatus
	/*R3_SYSSTAT*/R3SystemStatusMonitor
	/*R3_UNIX_CPU*/R3CpuUser

**Table A-1 Predefined History Filter Groups and History Filters (Part 7 of 8)**

<b>Filter Type</b>	<b>Included History Filters</b>
<i>FilterGroup: R3 (cont.)</i>	/*R3_UNIX_CPU/*R3CpuUtil
	/*R3_UNIX_SWAP/*R3SwapFree
	/*R3_UNIX_SWAP/*R3SwapFreePct
	/*R3_UPDATE_MONITOR/*R3UpdateCount
	/*R3_USER/*UserCount
<i>FilterGroup: Domino</i>	/*NOTES_DB/*LNDBSize
	/*NOTES_DB/*NumDataNotes
	/*NOTES_DB/*WeeklyUse
	/*NOTES_DB/*WhiteSpaceKb
	/*NOTES_DBREPMON/*CountDifferent
	/*NOTES_DBREPMON/*CountSame
	/*NOTES_DBREPMON/*DestCount
	/*NOTES_DBREPMON/*SrcCount
	/*NOTES_DBVIEWS/*ViewConflicts
	/*NOTES_DBVIEWS/*ViewNumNotes
	/*NOTES_DBVIEWS/*ViewResponse
	/*NOTES_DBVIEWS/*ViewLoad
	/*NOTES_E2E/*E2EResponseTime
	/*NOTES_MAILBOX/*Activity
	/*NOTES_MAILBOX/*LNDBSize
	/*NOTES_MSGTOPRECBYCOUNT/*MsgsReceived
	/*NOTES_MSGTOPRECBYSIZE/*BytesReceived
	/*NOTES_MSGTOPSENDERSBYCOUNT/*MsgSent
	/*NOTES_MSGTOPSENDERSBYSIZE/*BytesSent
	/*NOTES_SR/*ServerLoad
	/*NOTES_SR/*ServerResponse
	/*NOTES_SR/*ServerState
	/*NOTES_SR/*Transactions
	/*NOTES_SRPROCESS/*Status

**Table A-1    Predefined History Filter Groups and History Filters (Part 8 of 8)**

<b>Filter Type</b>	<b>Included History Filters</b>
<i>FilterGroup: Domino (cont.)</i>	/*/NOTES_SRPROCESS/*DropCount
	/*/NOTESTAT_CLUSTER/*OpnRedrt.Failovr.Suc
	/*/NOTESTAT_CLUSTER/*OpnRedrt.FailovrByPath.Suc
	/*/NOTESTAT_CLUSTER/*OpnRedrt.LdBalance.Suc
	/*/NOTESTAT_CLUSTER/*OpnRedrt.LdBalanceByPath.Suc
	/*/NOTESTAT_DATABASE/*DbCache.CurrentEntries
	/*/NOTESTAT_DATABASE/*DbCache.Hits
	/*/NOTESTAT_DATABASE/*DbCache.OvercrowdingRejections
	/*/NOTESTAT_MAIL/*Dead
	/*/NOTESTAT_MAIL/*Delivered
	/*/NOTESTAT_MAIL/*TotalRouted
	/*/NOTESTAT_MAIL/*TotalRouted.SMTP
	/*/NOTESTAT_MAIL/*Waiting
	/*/NOTESTAT_MAILPROBE/*ResponseTime
	/*/NOTESTAT_MEMORY/*Availability
	/*/NOTESTAT_MTA/*Dead
	/*/NOTESTAT_MTA/*TotalRouted
	/*/NOTESTAT_MTA/*Transferred
	/*/NOTESTAT_PROBE/*ResponseTime
	/*/NOTESTAT_SERVER/*Users
	/*/NOTESTAT_WEBRET/*Access.FTP
	/*/NOTESTAT_WEBRET/*Access.HTTP
	/*/NOTESTAT_WEBRET/*URLs.Failed
	/*/NOTESTAT_WEBRET/*URLs.Requested
	/*/NOTESTAT_WEBRET/*URLs.Succeeded



---

## Time Zone Acronyms, Names, and GMT Offsets

Table B-1 displays a list of time zone acronyms, names, and GMT offsets as used in the DataStore Console. They are arranged in the alphabetical order of the time zone acronyms. All hour offsets are from Greenwich Mean Time.

**Table B-1 Time Zone Acronyms, Names, and Offsets (Part 1 of 3)**

<b>Acronyms</b>	<b>Names</b>	<b>GMT Offset in Hours</b>
ADT	Atlantic Daylight Time	-0300
AHST	Alaska-Hawaii Standard Time	-1000
AST	Atlantic Standard Time	-0400
AT	Azores Time	-0200
BDT	Bering Daylight Time	-1000
BST	British Summer Time	+0100
BT	Bering Time	-1100
CAT	Central Alaska Time	-1000
CCT	China Coast Time	+0800
CDT	Central Daylight Time	-0500
CET	Central European Time	+0100
CST	Central Standard Time	-0600
EADT	East Australian Daylight Time	+1100
EAST	East Australian Standard Time	+1000
EDT	Eastern Daylight Time	-0400
EET	Eastern European Time	+0200
EST	Eastern Standard Time	-0500
FST	French Summer Time	+0200
FWT	French Winter Time	+0100
GMT	Greenwich Mean Time	+0000
GST	Greenland Standard Time	-0300
HDT	Hawaiian Daylight Time	-0900
HST	Hawaiian Standard Time	-1000
IDL	International Date Line	-1200
IDLE	International Date Line, East	+1200
IDLW	International Date Line, West	-1200
JDT	Japan Daylight Time	+1000
JST	Japan Standard Time	+0900

**Table B-1 Time Zone Acronyms, Names, and Offsets (Part 2 of 3)**

<b>Acronyms</b>	<b>Names</b>	<b>GMT Offset in Hours</b>
KST	Korean Standard Time	+0900
MDT	Mountain Daylight Time	-0600
MEST	Middle Eastern Summer Time	+0200
MET	Middle European Time	+0100
MEWT	Middle European Winter Time	+0100
MST	Mountain Standard Time	-0700
NT	Nome Time	-1100
NZDT	New Zealand Daylight Time	+1300
NZST	New Zealand Standard Time	+1200
NZT	New Zealand Time	+1200
PDT	Pacific Daylight Time	-0700
PST	Pacific Standard Time	-0800
SST	South Sumatra Time	+0700
SWT	Swedish Winter Time	+0100
USSR-zone 1	USSR-zone 1	+0200
USSR-zone 2	USSR-zone 2	+0300
USSR-zone 3	USSR-zone 3	+0400
USSR-zone 4	USSR-zone 4	+0500
USSR-zone 5	USSR-zone 5	+0600
USSR-zone 6	USSR-zone 6	+0700
USSR-zone 7	USSR-zone 7	+0800
USSR-zone 8	USSR-zone 8	+0900
USSR-zone 9	USSR-zone 9	+1000
USSR-zone 10	USSR-zone 10	+1100
UT	Universal Time	+0000
WADT	West Australia Daylight Time	+0800
WAST	West Australian Standard Time	+0700
WAT	West Africa Time	-0100
WET	Western European Time	+0000

**Table B-1    Time Zone Acronyms, Names, and Offsets (Part 3 of 3)**

Acronyms	Names	GMT Offset in Hours
YDT	Yukon Daylight Time	-0800
YST	Yukon Standard Time	-0900
ZP4	GMT Plus 4 Hours	+0400
ZP5	GMT Plus 5 Hours	+0500
ZP6	GMT Plus 6 Hours	+0600



---

# Sample Retriever Log Files

This appendix contains samples of actual retriever log files. These samples display the type of information available at different log levels.

Overview. ....	C-2
Log Level 1. ....	C-4
Log Level 2. ....	C-4
Log Level 3. ....	C-5
Log Level 4. ....	C-10

## Overview

History retrievers and event retrievers can be configured to send information to a log file. The Log files are viewed in a PATROL Console in the Log dialog box.

By default, all retrievers have Log level 3 pre-selected. For information about setting Log levels for retrievers, see

- “Configuring a Local History Retriever” on page 6-10.
- “Configuring a Local Event Retriever” on page 6-15.
- “Configuring Remote History Retrievers” on page 6-28.
- “Configuring Remote Event Retrievers” on page 6-31.

For information about viewing the Log dialog box, see “Viewing DataStore KM Component Logs” on page 6-35.

---

### Tip

You can also use a regular text editor to view the log file on the agent machine’s file system without having to use the PATROL Console. The path to the log file is displayed in the Log dialog box.

---

For each Log level, the information collected is cumulative. For example, at Log level 3, the log file will display all messages from Level 0, Level 1, Level 2, and Level 3.

The samples in this appendix are from Log level 1, Log level 2, Log level 3, and Log level 4. No samples from Log level 0 or from Log level 5 are provided.

- At Log level 0, the least amount of detail that can be selected, the log file will display information about retriever startup only.
- At Log level 5, the greatest amount of detail that can be selected, the log file will display information about all connection details. This includes polling formation as well as the status of every single connection to the aggregator.

At all Log levels, each log entry provides a date and timestamp, a Trace level that indicates the equivalent log level of the entry, and the actual log message.

# Log Level 1

## Summary

Log Level 1 provides essential status information. Logged information includes messages about

- a retriever's initial connection to the aggregator
- an event retriever's connection to an agent
- the opening of the history database upon a history retriever's startup

## Log Level 1 Sample Retriever Log Files

```
06-06-2001 21:49:32 GMT TRACE-1 [Retriever Startup] opening
PATROL history database at
[/export/HOME/patrol/PATROL3.4/Solaris27-sun4/log/history/sloop/318
1]
```

```
06-06-2001 21:49:32 GMT TRACE-1 [Retriever Startup] history
database opened
```

```
06-06-2001 21:49:32 GMT TRACE-0 [Retriever Startup] Retriever
starting.
```

```
06-06-2001 21:49:32 GMT TRACE-1 [Retriever Startup] connected to
aggregator on tcp:pauslab2:4568
```

# Log Level 2

## Summary

Log level 2 provides a configuration and declaration overview. Logged information includes messages about

- the agent name used to register
- the established times for history retrieval
- the number of parameters being declared by a history retriever
- the number of parameters that will be retrieved by a history retriever

## Log Level 2 Sample Retriever Log Files

06-06-2001 21:49:32 GMT TRACE-1 [Retriever Startup] opening  
PATROL history database at  
[/export/HOME/patrol/PATROL3.4/Solaris27-sun4/log/history/sloop/318  
1]

06-06-2001 21:49:32 GMT TRACE-1 [Retriever Startup] history  
database opened

06-06-2001 21:49:32 GMT TRACE-0 [Retriever Startup] Retriever  
starting.

06-06-2001 21:49:32 GMT TRACE-1 [Retriever Startup] connected to  
aggregator on tcp:pauslab2:4568

06-06-2001 21:49:32 GMT TRACE-2 [Registering] as [sloop]

06-06-2001 21:49:32 GMT TRACE-2 [Configuring] will retrieve every  
60 minutes, relative to 06-06-2001 00:50:00 GMT

06-06-2001 21:49:32 GMT TRACE-2 [Configuring] will retrieve every  
60 minutes, relative to 06-06-2001 00:50:00 GMT

06-06-2001 21:50:02 GMT TRACE-2 [Declaring] found 249 new  
parameters

06-06-2001 21:50:15 GMT TRACE-2 [Declaring] will retrieve 108  
parameters

## Log Level 3

### Summary

Log level 3 provides configuration and declaration details as well as a  
retrieval overview. Log level 3 messages (TRACE-3) messages include

- a report of the aggregator version
- registration TimeSync messages

- registration Collection Times messages
- AggregatorReady messages
- StartCollecting messages
- which events will be retrieved by the event retriever
- which parameters will be retrieved by a history retriever
- for each retrieval cycle, whether history data is being sent by a history retriever

---

**Note**

---

If a history retriever is not retrieving and forwarding any data, it may simply be because there is no PATROL data to retrieve during that retrieval cycle. At Log level 3, if there is data to send, the log message will be “sending history data”; if there is no data to send, the log message will be “no history data to send”.

---

### Log Level 3 Sample Retriever Log Files

06-26-2001 19:36:23 GMT TRACE-2 [setPatrolHistoryDbName]  
PATROL HISTORY DATABASE SET  
TO:/export/HOME/patrol/PATROL3.4/Solaris27-sun4/log/history/sloop/  
3181

06-26-2001 19:36:23 GMT TRACE-1 [Retriever Startup] history  
database opened

06-26-2001 19:36:23 GMT TRACE-0 [Retriever Startup] Retriever  
starting.

06-26-2001 19:36:23 GMT TRACE-1 [Retriever Startup] connected to  
aggregator on tcp:pauslab2:4568

06-26-2001 19:36:23 GMT TRACE-2 [Registering] as [sloop]

06-26-2001 19:36:23 GMT TRACE-3 [Configuring] CollectionTimes  
msg received

06-26-2001 19:36:23 GMT TRACE-2 [Configuring] will retrieve every  
60 minutes, relative to 06-26-2001 00:37:00 GMT

06-26-2001 19:36:23 GMT TRACE-3 [Registering] aggregator version: 1.2.00

06-26-2001 19:36:23 GMT TRACE-3 [Registering] already registered

06-26-2001 19:36:23 GMT TRACE-3 [Registering] TimeSync msg received

06-26-2001 19:36:23 GMT TRACE-3 [Configuring] CollectionTimes msg received

06-26-2001 19:36:23 GMT TRACE-2 [Configuring] will retrieve every 60 minutes, relative to 06-26-2001 00:37:00 GMT

06-26-2001 19:36:23 GMT TRACE-3 [Registering] AggregatorReady msg received

06-26-2001 19:36:23 GMT TRACE-3 [Registering] StartCollecting msg received

06-26-2001 19:37:05 GMT TRACE-2 [Declaring] found 470 new parameters

06-26-2001 19:37:05 GMT TRACE-3 [Declaring] declaring 100 parameters

06-26-2001 19:37:21 GMT TRACE-3 [Declaring] will retrieve sloop/CPU.CPU/CPUCpuUtil

06-26-2001 19:37:21 GMT TRACE-3 [Declaring] will retrieve sloop/CPU.CPU/CPUload

06-26-2001 19:37:21 GMT TRACE-3 [Declaring] will retrieve sloop/CPU.CPU/CPUSTime

06-26-2001 19:37:21 GMT TRACE-3 [Declaring] will retrieve sloop/CPU.CPU/CPUUserTime

06-26-2001 19:37:21 GMT TRACE-3 [Declaring] will retrieve sloop/DISK.DISK/DSKPercentBusy

06-26-2001 19:37:21 GMT TRACE-3 [Declaring] will retrieve  
sloop/DISK.DISK/DSKRead

06-26-2001 19:37:21 GMT TRACE-3 [Declaring] will retrieve  
sloop/DISK.DISK/DSKWrite

06-26-2001 19:37:21 GMT TRACE-3 [Declaring] will retrieve  
sloop/DISK.dad0/DSKPercentBusy

06-26-2001 19:37:21 GMT TRACE-3 [Declaring] will retrieve  
sloop/DISK.dad0/DSKRead

06-26-2001 19:37:21 GMT TRACE-3 [Declaring] will retrieve  
sloop/DISK.dad0/DSKWrite

06-26-2001 19:37:21 GMT TRACE-3 [Declaring] will retrieve  
sloop/DISK.dad1/DSKPercentBusy

06-26-2001 19:37:21 GMT TRACE-3 [Declaring] will retrieve  
sloop/DISK.dad1/DSKRead

06-26-2001 19:37:21 GMT TRACE-3 [Declaring] will retrieve  
sloop/DISK.dad1/DSKWrite

06-26-2001 19:37:21 GMT TRACE-3 [Declaring] will retrieve  
sloop/DISK.sd32/DSKPercentBusy

06-26-2001 19:37:21 GMT TRACE-3 [Declaring] will retrieve  
sloop/DISK.sd32/DSKRead

06-26-2001 19:37:21 GMT TRACE-3 [Declaring] will retrieve  
sloop/DISK.sd32/DSKWrite

06-26-2001 19:37:21 GMT TRACE-3 [Declaring] will retrieve  
sloop/FILESYSTEM.FILESYSTEM/FSAvailableSpace

06-26-2001 19:37:21 GMT TRACE-3 [Declaring] will retrieve  
sloop/FILESYSTEM.FILESYSTEM/FSCapacity



06-26-2001 19:37:21 GMT TRACE-3 [Declaring] will retrieve  
sloop/FILESYSTEM.FILESYSTEM/FSUsedSpace

06-26-2001 19:37:21 GMT TRACE-3 [Declaring] will retrieve  
sloop/FILESYSTEM.austin-netscape-4.7/FSAvailableSpace

06-26-2001 19:37:21 GMT TRACE-3 [Declaring] will retrieve  
sloop/FILESYSTEM.austin-netscape-4.7/FSCapacity

06-26-2001 19:37:21 GMT TRACE-3 [Declaring] will retrieve  
sloop/FILESYSTEM.austin-netscape-4.7/FSUsedSpace

06-26-2001 19:37:21 GMT TRACE-3 [Declaring] will retrieve  
sloop/FILESYSTEM.cdrom-pat\_sr\_unix1/FSAvailableSpace

06-26-2001 19:37:21 GMT TRACE-3 [Declaring] will retrieve  
sloop/FILESYSTEM.cdrom-pat\_sr\_unix1/FSCapacity

06-26-2001 19:37:21 GMT TRACE-3 [Declaring] will retrieve  
sloop/FILESYSTEM.cdrom-pat\_sr\_unix1/FSUsedSpace

06-26-2001 19:37:21 GMT TRACE-3 [Declaring] will retrieve  
sloop/FILESYSTEM.cdrom-pat\_sr\_unix2/FSAvailableSpace

06-26-2001 19:37:21 GMT TRACE-3 [Declaring] will retrieve  
sloop/FILESYSTEM.cdrom-pat\_sr\_unix2/FSCapacity

06-26-2001 19:37:21 GMT TRACE-3 [Declaring] will retrieve  
sloop/FILESYSTEM.cdrom-pat\_sr\_unix2/FSUsedSpace

06-26-2001 19:37:21 GMT TRACE-3 [Declaring] will retrieve  
sloop/FILESYSTEM.dev-fd/FSAvailableSpace

06-26-2001 19:37:21 GMT TRACE-3 [Declaring] will retrieve  
sloop/FILESYSTEM.dev-fd/FSCapacity

06-26-2001 19:37:21 GMT TRACE-3 [Declaring] will retrieve  
sloop/FILESYSTEM.dev-fd/FSUsedSpace

06-26-2001 19:37:21 GMT TRACE-3 [Declaring] will retrieve  
sloop/FILESYSTEM.export-HOME/FSAvailableSpace

## Log Level 4

### Summary

Log level 4 provides retrieval details. Log Level 4 messages (TRACE-4) specify which parameters are being read and transmitted each retrieval cycle by a history retriever.

### Log Level 4 Sample Retriever Log Files

---

#### Note

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This sample contains two excerpts from a Log level 4 retriever log file. Due to the length of log files at Log level 4, a portion of the Log level 4 sample retriever log file has been deleted. Chronologically, there is a gap between the two log file excerpts.

---

#### Excerpt 1 from Log Level 4 Sample Retriever Log Files

06-26-2001 19:36:23 GMT TRACE-2 [setPatrolHistoryDbName]  
PATROL HISTORY DATABASE SET  
TO:/export/HOME/patrol/PATROL3.4/Solaris27-sun4/log/history/sloop/  
3181

06-26-2001 19:36:23 GMT TRACE-1 [Retriever Startup] history  
database opened

06-26-2001 19:36:23 GMT TRACE-0 [Retriever Startup] Retriever  
starting.

06-26-2001 19:36:23 GMT TRACE-4 [Connection] Attempting  
connection to aggregator at tcp:pauslab2:4568

06-26-2001 19:36:23 GMT TRACE-4 [Connection] Connected to  
tcp:pauslab2:4568

06-26-2001 19:36:23 GMT TRACE-1 [Retriever Startup] connected to  
aggregator on tcp:pauslab2:4568

06-26-2001 19:36:23 GMT TRACE-2 [Registering] as [sloop]

06-26-2001 19:36:23 GMT TRACE-3 [Configuring] CollectionTimes  
msg received

06-26-2001 19:36:23 GMT TRACE-2 [Configuring] will retrieve every  
60 minutes, relative to 06-26-2001 00:37:00 GMT

06-26-2001 19:36:23 GMT TRACE-3 [Registering] aggregator version:  
1.2.00

06-26-2001 19:36:23 GMT TRACE-3 [Registering] already registered

06-26-2001 19:36:23 GMT TRACE-3 [Registering] TimeSync msg  
received

06-26-2001 19:36:23 GMT TRACE-3 [Configuring] CollectionTimes  
msg received

06-26-2001 19:36:23 GMT TRACE-2 [Configuring] will retrieve every  
60 minutes, relative to 06-26-2001 00:37:00 GMT

06-26-2001 19:36:23 GMT TRACE-3 [Registering] AggregatorReady  
msg received

06-26-2001 19:36:23 GMT TRACE-3 [Registering] StartCollecting msg  
received

06-26-2001 19:37:05 GMT TRACE-2 [Declaring] found 470 new  
parameters

06-26-2001 19:37:05 GMT TRACE-3 [Declaring] declaring 100  
parameters

06-26-2001 19:37:05 GMT TRACE-4 [Connection] Attempting connection to aggregator at tcp:pauslab2:4568

06-26-2001 19:37:05 GMT TRACE-4 [Connection] Connected to tcp:pauslab2:4568

06-26-2001 19:37:21 GMT TRACE-3 [Declaring] will retrieve sloop/CPU.CPU/CPUCpuUtil

06-26-2001 19:37:21 GMT TRACE-3 [Declaring] will retrieve sloop/CPU.CPU/CPULoad

06-26-2001 19:37:21 GMT TRACE-3 [Declaring] will retrieve sloop/CPU.CPU/CPUSysTime

### **Excerpt 2 from Log Level 4 Sample Retriever Log Files**

06-26-2001 19:37:30 GMT TRACE-3 [Declaring] declaring 100 parameters

06-26-2001 19:37:31 GMT TRACE-3 [Declaring] declaring 100 parameters

06-26-2001 19:37:31 GMT TRACE-3 [Declaring] declaring 70 parameters

06-26-2001 19:37:39 GMT TRACE-3 [Declaring] will retrieve sloop/SWAP.SWAP/SWPTotSwapFreeSpace

06-26-2001 19:37:39 GMT TRACE-3 [Declaring] will retrieve sloop/SWAP.SWAP/SWPTotSwapSize

06-26-2001 19:37:39 GMT TRACE-3 [Declaring] will retrieve sloop/SWAP.SWAP/SWPTotSwapUsedPercent

06-26-2001 19:37:39 GMT TRACE-3 [Declaring] will retrieve sloop/SWAP.Summary/SWPTotSwapFreeSpace

06-26-2001 19:37:39 GMT TRACE-3 [Declaring] will retrieve  
sloop/SWAP.Summary/SWPTotSwapSize

06-26-2001 19:37:39 GMT TRACE-3 [Declaring] will retrieve  
sloop/SWAP.Summary/SWPTotSwapUsedPercent

06-26-2001 19:37:39 GMT TRACE-3 [Declaring] will retrieve  
sloop/USERS.USERS/USRNoSession

06-26-2001 19:37:39 GMT TRACE-3 [Declaring] will retrieve  
sloop/USERS.USERS/USRNoUser

06-26-2001 19:37:39 GMT TRACE-2 [Declaring] will retrieve 117  
parameters

06-26-2001 19:37:39 GMT TRACE-4 [Transmitting] reading  
sloop/FILESYSTEM.export-HOME/FSCapacity from 06-23-2001  
20:38:31 GMT

06-26-2001 19:37:39 GMT TRACE-4 [Transmitting] reading  
sloop/FILESYSTEM.home-dhorse/FSUsedSpace from 06-23-2001  
20:38:31 GMT

06-26-2001 19:37:39 GMT TRACE-4 [Transmitting] reading  
sloop/FILESYSTEM.root/FSUsedSpace from 06-23-2001 20:38:47  
GMT

06-26-2001 19:37:39 GMT TRACE-3 [Transmitting] sending history  
data

06-26-2001 19:37:39 GMT TRACE-4 [Transmitting] sending history  
data (3 samples)

06-26-2001 19:37:39 GMT TRACE-4 [Transmitting] reading  
sloop/FILESYSTEM.sww-scripts/FSCapacity from 06-23-2001 20:38:47  
GMT

06-26-2001 19:37:39 GMT TRACE-4 [Transmitting] reading  
sloop/FILESYSTEM.tmp/FSCapacity from 06-23-2001 20:38:47 GMT

06-26-2001 19:37:39 GMT TRACE-4 [Transmitting] reading  
sloop/MEMORY.MEMORY/MEMPageOut from 06-23-2001 20:38:47  
GMT

06-26-2001 19:37:39 GMT TRACE-4 [Transmitting] sending history  
data (2 samples)

06-26-2001 19:37:40 GMT TRACE-4 [Transmitting] reading  
sloop/DISK.dad0/DSKPercentBusy from 06-23-2001 20:38:31 GMT

06-26-2001 19:37:40 GMT TRACE-4 [Transmitting] sending history  
data (1 samples)

06-26-2001 19:37:40 GMT TRACE-4 [Transmitting] reading  
sloop/DISK.dad0/DSKRead from 06-23-2001 20:38:31 GMT

06-26-2001 19:37:40 GMT TRACE-4 [Transmitting] sending history  
data (1 samples)

06-26-2001 19:37:41 GMT TRACE-4 [Transmitting] reading  
sloop/FILESYSTEM.home-rdeweerd/FSUsedSpace from 06-23-2001  
20:38:31 GMT

06-26-2001 19:37:41 GMT TRACE-4 [Transmitting] reading  
sloop/CPU.CPU/CPUCpuUtil from 06-23-2001 20:38:31 GMT

06-26-2001 19:37:41 GMT TRACE-4 [Transmitting] sending history  
data (1 samples)

06-26-2001 19:37:41 GMT TRACE-4 [Transmitting] reading  
sloop/FILESYSTEM.cdrom-pat\_sr\_unix1/FSUsedSpace from  
06-23-2001 20:38:31 GMT

06-26-2001 19:37:41 GMT TRACE-4 [Transmitting] reading  
sloop/FILESYSTEM.home-cgrayson/FSAvailableSpace from  
06-23-2001 20:38:31 GMT

06-26-2001 19:37:41 GMT TRACE-4 [Transmitting] reading  
sloop/FILESYSTEM.nfs-ironwood-bmc-export-home-u002/FSCapacity  
from 06-23-2001 20:38:31 GMT

06-26-2001 19:37:41 GMT TRACE-4 [Transmitting] reading  
sloop/FILESYSTEM.nfs-tent-patrol-pkgex-img\_rep/FSAvailableSpace  
from 06-23-2001 20:38:31 GMT

06-26-2001 19:37:41 GMT TRACE-4 [Transmitting] sending history  
data (2 samples)

06-26-2001 19:37:42 GMT TRACE-4 [Transmitting] reading  
sloop/FILESYSTEM.nfs-tent-patrol-pkgex/FSCapacity from 06-23-2001  
20:38:31 GMT

06-26-2001 19:37:42 GMT TRACE-4 [Transmitting] reading  
sloop/FILESYSTEM.sww-share/FSCapacity from 06-23-2001 20:38:47  
GMT

06-26-2001 19:37:42 GMT TRACE-4 [Transmitting] reading  
sloop/SWAP.SWAP/SWPTotSwapFreeSpace from 06-23-2001 20:38:57  
GMT

06-26-2001 19:37:42 GMT TRACE-4 [Transmitting] reading  
sloop/USERS.USERS/USRNoSession from 06-23-2001 20:38:57 GMT

06-26-2001 19:37:42 GMT TRACE-4 [Transmitting] sending history  
data (2 samples)

06-26-2001 19:37:42 GMT TRACE-4 [Transmitting] reading  
sloop/FILESYSTEM.home-wvore/FSCapacity from 06-23-2001  
20:38:31 GMT

06-26-2001 19:37:42 GMT TRACE-4 [Transmitting] reading  
sloop/FILESYSTEM.sww-bin/FSUsedSpace from 06-23-2001 20:38:47  
GMT

06-26-2001 19:37:42 GMT TRACE-4 [Transmitting] reading  
sloop/FILESYSTEM.sww-scripts/FSUsedSpace from 06-23-2001  
20:38:47 GMT





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## Glossary

<b>aggregator</b>	A Service Reporting component that compiles the information collected from one or more retrievers and stores the data in the DataStore as raw and summarized data. <i>See</i> data aggregator.
<b>application class</b>	The object class to which an application instance belongs; also, its representation as a container (Unix) or folder (Windows NT) on the PATROL Console. You can use a PATROL Developer Console to add or change application classes.
<b>application instance</b>	A system resource discovered by PATROL. Contains the information and attributes of the application class that it belongs to. <i>See also</i> application class, and interval type.
<b>associations</b>	A way to classify related namespace data (application classes, application instances, and parameters) used for a common purpose. Data can be associated by location, organization, and category.
<b>categories</b>	A type of association created by the DataStore Administrator. Categories can be used to help select data for reports.
<b>component</b>	<p>The subject of a measurement or event. Examples in PATROL include</p> <ul style="list-style-type: none"><li>• an Oracle database instance</li><li>• a host running a Windows NT server.</li></ul>

<b>data aggregator</b>	A data aggregator receives event and parameter data from retrievers. It also forwards that data to the DataStore. Data aggregators control DataStore's daily, weekly, and monthly summarizing activities, normalize and synchronize time values between different data sources, control and monitor a retriever's status, and download configuration parameters to a retriever.
<b>data summarization</b>	A process that converts raw data into summary data. When raw data is converted, it is organized into hourly, daily, weekly, and monthly summary time periods. The summarized data can be used by the QuickReport Editor and by Solution Reports.
<b>DataStore</b>	The DataStore is the database used by DataStore to store parameter and event data collected from your PATROL environment. This data is stored as time-summarized measurements and can include raw data. Time-summarized measurements are the inputs to reports.
<b>DataStore Console</b>	The DataStore Console is the graphical user interface (GUI) for DataStore. With the DataStore Console, you can determine what data is collected. You can also monitor and maintain aggregators and retrievers.
<b>DataStore KM</b>	The knowledge module (KM) that DataStore uses to configure and monitor DataStore components, including data aggregators and retrievers. The DataStore KM lets you configure local or remote data aggregators and retrievers. You can also start, stop, and monitor the current status or performance of these components.
<b>description</b>	Information displayed with a parameter in the DataStore Console. Added by the DataStore Administrator, descriptions can be any information the Administrator finds useful. Descriptions do not appear in reports.
<b>drill down</b>	While viewing a report, the ability to view the same information in more detail as part of the same report.
<b>dump_hist utility</b>	A command line utility that lets you save parameter history data from databases on PATROL Agents to ASCII text files.

<b>End User Desktop</b>	On Windows NT platforms, a graphical user interface that end users can use to request local report generation, as well as local printing and viewing of reports.
<b>enterprise</b>	All the components, measurements, and events in the DataStore valid for a given time.
<b>enterprise view</b>	<p>A subset of the components, measurements, and events stored in the DataStore for a given time span. For example, an enterprise view might include:</p> <ul style="list-style-type: none"> <li>• all Windows NT nodes located in Houston and their KM parameter values for yesterday</li> <li>• all Microsoft Exchange servers on nodes whose name starts “hou” and their Exchange KM parameter TotalMsgSize averaged daily for the last week</li> </ul>
<b>event filter</b>	Created in the DataStore Console, an event filter controls the collection of event data. An event filter may contain type, status, and severity criteria. With an event filter, you can specify the information, state change, error, and warning events that you want to collect.
<b>event retriever</b>	A component that collects data when an event matches criteria specified in the event filter. Once the event occurs, the event retriever forwards the raw event data to the data aggregator.
<b>filters</b>	<p>A filter is used to determine what information is collected. Product Name uses the following filters:</p> <ul style="list-style-type: none"> <li>• history filters—used to collect parameter information</li> <li>• event filters—used to collect event information</li> </ul>
<b>generic report</b>	In the QuickReport Editor, a presentation (graph, table, or chart) generated by specifying parameters, selection criteria, and labels.

<b>history filter</b>	A history filter lets you specify what parameter data is collected from a PATROL Agent. With a history filter, you can specify a subset of the parameter data collected by the KMs installed on the agent being queried.
<b>history retriever</b>	A component that collects parameter information from an agent's local cache.
<b>interval type</b>	A specified time unit. A time unit can be an hour, a day, a week, a month, or a year.
<b>label</b>	An information tag used to provide a user-friendly name to parameter data. Added by the DataStore Administrator, labels are displayed in reports. Labels are not used to select data for reports.
<b>locations</b>	A type of association created by the DataStore Administrator. Locations can be used to help select data for reports.
<b>manual collection</b>	Lets you start or stop collection of parameter data regardless of the settings in a history filter. Manual collection lets you be very specific about the data being collected. Once you use manual collection, those settings remain in effect until you clear them.
<b>organizations</b>	A type of association created by the DataStore Administrator. Organizations can be used to help select data for reports.
<b>open data retriever</b>	Process that reads a comma-separated value file and lets you load dump_hist data into the DataStore. <i>See</i> retrievers.
<b>QuickReport Editor</b>	A graphical user interface that uses generic report templates to create new reports. A series of dialogs help you define the input parameters for your report.

**QuickReport Template**

One of several report definitions or templates that a user can select to generate a specific report. The definition includes

- a visual presentation and a list of namespaces that control the presentation
- a family of content and a list of required namespaces to specify the content

For example, the top/bottom N summary graph defines the visual presentation as a bar graph and defines the input as at the most N rows of data, sorted in ascending or descending order.

**report**

Generated presentations (graphs, tables, or charts) based on stored PATROL event and parameter data that you can view remotely using a Web browser on supported platforms.

**report consumer**

Person who locates, runs, schedules, and views report documents. Typically, this person is a manager or senior IT professional in charge of managing a portion of the enterprise infrastructure.

**report composer**

A person who creates schedules and runs report templates, creates new report templates, and ensures that the necessary data is being collected. Typically, this person is a technical IT professional who needs certain kinds of PATROL information to appear in reports.

## **Report Server**

Reporting component responsible for generating reports using data from the DataStore and communicating with clients for report viewing and printing. It also manages and controls user roles and access. With the report server, you can:

- manage users request (on-demand reports with run-time parameters)
- control the report encyclopedia and validate users and requests
- generate report instances
- print reports
- manage persistent objects, such as report instances, folders, users, and roles

## **report store administrator**

A person who installs components, configures components, and periodically cleans up the report store/encyclopedia (for example, archiving old reports, removing old reports, or removing unused report templates).

## **report template**

Report templates (RTs) are definitions that direct Service Reporting to extract data from the DataStore for a given time span and generate a presentation in the form of a graph, table, or chart.

## **retrievers**

Components that compile, filter, and forward agent data from an agent to an aggregator. Aggregators send filter settings to the retrievers. Those filter settings specify which parameter data and event data to collect. In the DataStore Console Console, you can work with the following types of retrievers:

- history retriever—collects parameter data from an agent's local cache
- event retriever—collects event data
- open data retriever—reads a comma-separated value file and lets you load dump\_hist data into the DataStore

## **.Solution Reports**

A package of report templates created for the management of a particular technology or application. Solution Reports require little or no user setup.

<b>time span</b>	A particular interval defined by its interval type and start time, for example, week of January 10, 2001.
<b>time span type</b>	For simple time spans, the interval type. For nested time spans, the interval type and number of sub-intervals, for example, weekly span shown as 168 hours.
<b>unit</b>	An element of measurement, such as GB, KB, or bytes-per-second. Used to indicate the unit represented by the data. Added by the DataStore Administrator, units are displayed in reports. Units are not used to select data for reports.
<b>Web Desktop</b>	The component of Product Name that provides access to reporting. Using the Web Desktop, you can view contents of the Report Encyclopedia and create your own reports with the QuickReport Editor. In general, the Web Desktop allows you to generate, schedule, locate, view, print, and distribute reports.
<b>Windows NT Viewer</b>	On Windows NT platforms, an application that an end user can use to print and view reports.





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